UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1201 ELM STREET, SUITE 500
DALLAS, TEXAS 75270

REDACTED VERSION

FEB 19 2020

MEMORANDUM

SUBJECT: Request for a Ceiling Increase To Complete the Removal Action (Phase 2) at the Goodrich Asbestos Site, Miami, Ottawa County, Oklahoma.

FROM: Mike McAteer, On-Scene Coordinator
Readiness and Emergency Response Team

THRU: Craig Carroll, Chief
Emergency Management Branch

TO: Wren Stenger, Director
Superfund and Emergency Management Division

I. PURPOSE

This memorandum requests approval for an increase to the funding ceiling in the amount of $249,000 pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, 42 U.S.C. §§9601 et seq., to complete the second phase of removal activities at the Goodrich Asbestos Site in Miami, Ottawa County, Oklahoma (hereafter referred to as the "Site"). Approval of this request will bring the total removal action ceiling to $4,675,742. The proposed second phase of removal activities involves the abatement of Asbestos Containing Materials (ACM) inside the Powerhouse Building and removal of ACM in the pits and basements located throughout the foundations. A small component of the second removal phase will also address incidental wastes abandoned by a previous owner. These wastes include waste solvents, bleach, toluene, paints, thousands of fluorescent light bulbs (mercury), carbon black powder, and universal wastes such as mercury switches. These wastes have been released, or threaten to be released, into the environment stemming primarily from the operations of the B.F. Goodrich plant at the Site from approximately 1946 to 1986. This Site involves nationally significant or precedent setting issues, as this removal primarily involves asbestos.

The Region 6 Superfund and Emergency Management Division Director provided verbal approval for an Emergency Removal Action at the Site (Phase 1) on May 2, 2019. An Emergency Removal Action and Exemption from the $2 Million and 12 month Statutory Limitation were then approved in an Action Memo dated August 27, 2019, per Delegation of Authority 14-2 and Regional Delegation of Authority R6-14-2. The Action Memo documented a cost ceiling of $3,404,127. The Environmental Protection Agency (EPA) Headquarters was also notified of the Emergency Removal Action. Conditions continue to exist from the same source at the Site warranting a continuation of the removal action.

The second phase of removal also met the criteria for initiating a removal action under the National Contingency Plan (NCP), 40 CFR §300.415. A second Action Memo for Phase 2 removal work was approved by the Superfund Division Director on October 15, 2019, as concurred upon by the EPA Director of Emergency Management also on October 15, 2019. Removal work under Phase 2 began on

October 16, 2019, and is on-going as of the date of the Amendment. This second action, in addition to emergency removal work (Phase 1) that took place earlier in 2019 at the Site, require more than 12 months to complete. The conditions at the Site pose a threat to public health, welfare, and the environment.

II. SITE CONDITIONS AND BACKGROUND

SEMS #: OKD007126345
Category of Response: Time-Critical Removal
Site ID #: A6MK
Latitude: 36.8891796 Longitude: -94. 8892537

A. Site Description

The Site is a former B.F. Goodrich tire plant in Miami, Ottawa County, Oklahoma. The plant ceased operations in 1986. The property is divided into two parcels under two different owners. Due to the presence of asbestos in multiple structures on the Site, abatement and removal of the asbestos was required by the Oklahoma Department of Environmental Quality (ODEQ) and the Oklahoma Department of Labor (ODOL). Some initial attempts to abate/remove the asbestos were conducted by the current owner[1]; however, cleanup work ceased in late 2014 and early 2015. The Site has been abandoned since 2015 and has been broken into multiple times since then. In October of 2018, ODEQ contacted EPA Region 6, requesting assistance with securing access to the abandoned facility. The ODEQ also requested that the EPA conduct a removal assessment of the entire property related to asbestos contamination.

1. Removal Site Evaluation

Removal assessment sampling activities were conducted to confirm the presence of asbestos associated with the demolition debris piles as well as inside the Powerhouse Building and other structures remaining on-site.

The ODEQ requested assistance from the EPA in securing access to the facility. Vandals have routinely cut holes in the perimeter fence to gain access to the property. They have also removed doors/windows, including boarded up doors and windows, to gain access to the Powerhouse Building and other structures on-site. The EPA responded on four separate occasions between November 2018 and February 2019 to repair holes in the perimeter fence and re-board the doors and windows to the Powerhouse Building and Autoclave basement.

The ODEQ had collected a limited number of samples from some of the debris piles in early October 2018 and determined that varying levels of friable and non-friable asbestos were contained in some piles. The ODEQ requested that the EPA conduct a more detailed removal assessment to confirm the presence of asbestos across the entire Site. The EPA
The results of the assessment showed the following:

[1] The County of Ottawa is the current owner of the parcel on the southern half of the site on which the former BF Goodrich plant is located. On June 10, 2019, Ottawa County acquired ownership of this parcel through tax foreclosure when George Blakeney (doing business as Real Estate Remediation) failed to pay the taxes on the property.

The results of the assessment showed the following:

- Debris piles: Of the 19 piles sampled, all but one showed elevated levels of friable and non-friable asbestos, typically damaged transite. The levels of asbestos in the debris ranged from trace up to 40%.
- Powerhouse Building: A full asbestos survey of the building was conducted, and the results show there are approximately 4,875 linear feet of ACM piping as well as 16,817 square feet of ACM in insulation and equipment components. Levels of asbestos ranged from trace to 80%.
- Oven Building: Samples from various ACM-suspected pieces of equipment and structures within this building contained friable and non-friable asbestos at levels ranging from 25% to 70%.
- Brick Office Building: Samples from various ACM-suspected pieces of the structure within this building contained friable and non-friable asbestos at levels ranging from 2% to 60%.
- Autoclave Basement: Assessment and sampling from inside this basement area, which is located in the northwest corner of the foundation, found asbestos insulated pipes and ACM debris throughout the basement. This basement is partially open to the environment, can be easily accessed, and is in a decaying state.
- Utility Pits: Seven utility pits believed to have been used previously to house heavy equipment on the tire production lines contain asbestos insulation wrap as well as asbestos debris from when the building was demolished.
- Soil: Twenty grids were sampled directly north of the former plant structure. All samples were non-detect for asbestos, with the exception of one trace level of chrysotile.

Additional assessment work was also conducted during the Emergency Removal Action (Phase 1) during the summer of 2019. The following is a list of hazardous materials found abandoned on the Site:

- Waste carbon black (174 cubic yards)
- Conex Box of Asbestos Containing Insulation left by the previous owner (270 cubic yards).
- Miscellaneous hazardous goods abandoned in the southern warehouse including:
    - Fluorescent light bulbs containing elemental mercury (total count of 2,492)
    - Waste paints/solvents/bleach/pesticides-herbicides/floor strippers/Roof Coating/Surfactants

All asbestos containing materials, as well as any mercury in the fluorescent bulbs, located at the site are considered hazardous substances in accordance with Section 101(14) of CERCLA and 40 C.F.R. Section 302.4. The remaining above-listed materials are hazardous wastes and are considered pollutants or contaminants under CERCLA. Thepollutants and contaminants pose a risk to human health and the environment and will be addressed under this action memo. The risks are as follows:

Paints:
There are 61 cans of both latex and oil based paints corresponding to approximately 61 gallons of paint. Oil based paint found onsite has been categorized under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III), with the following hazards: Fire Hazard, Pressure Hazard, Acute Health Hazard, Chronic Health Hazard. The impact to human health through overexposure includes eye and skin irritation, and harmful if inhaled.

Solvents (Paint thinner):
There are approximately 16 gallons of various solvents onsite which contain chemicals that are designated as a hazardous substance under 40 CFR § 302.4 and 304 appendix A to part 355 (the list of extremely hazardous substances) an example of which is Benzene. The component of solvents are also identified in 29 CFR 1915 Subpart Z (Toxic and Hazardous Substances) and can be fatal if swallowed. The solvents, specifically paint thinners, onsite are also designated as a flammable liquid and vapor by the National Fire Protection Association (NFPA) and defined as a hazardous substance by OSHA with immediate acute and chronic health hazards. Due to the state of the containers and storage facility the risk of products decomposing is relevant which produce the following materials and subsequent hazards: Carbon dioxide and Carbon monoxide.

Floor stripper:
There are 20 containers of gallon-sized floor finisher onsite. It has been given a classification of 1 by the Hazardous Material Information System. This material is a known eye and skin irritant and precautions must be taken to avoid contact.

Bleach:
There are 38 containers, approximately 18 gallons, of bleach onsite stored within containers of varying integrity. The main component of bleach is defined by CERCLA Section 101(14), 42 U.S.C. § 9601(14), and further identified by 40 CFR § 302.4 as a hazardous substance. This chemical is also considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). Bleach is also found to be very toxic to aquatic life with long lasting effects.

Roof Coating:
There are two cans, approximately nine gallons of aluminum roof coating stored onsite. This item has been categorized under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III), with the following hazards: Fire Hazard, Pressure Hazard, Acute Health Hazard, Chronic Health Hazard. It is also identified as a possible carcinogen and may cause reproductive harm due to its component of polyaromatic hydrocarbons. Ecologically this product may cause mechanical damage to aquatic organisms. The naphtha and mineral spirits components are expected to volatilize in the environment and to be moderately toxic to both freshwater and marine organisms. It is also designated as a flammable liquid and vapor. Some components within this product are listed on the Toxic Substance and Control Act inventory.

Pesticides:
There are three containers of pesticide (specifically rat poison) onsite. This product has been designated as hazardous to humans and animals. It is regulated under OSHA 29 CFR 1915 Subpart Z- Toxic and hazardous substances. This product is extremely toxic to mammals, birds and other wildlife. Dogs, cats and scavenging mammals and birds might be poisoned if they feed upon animals that have eaten this bait, which is particularly pertinent as there is no controlled storage of this item onsite and therefore there is potential for local wildlife to come into contact with it. Specifically there are many birds residing within the warehouse itself.

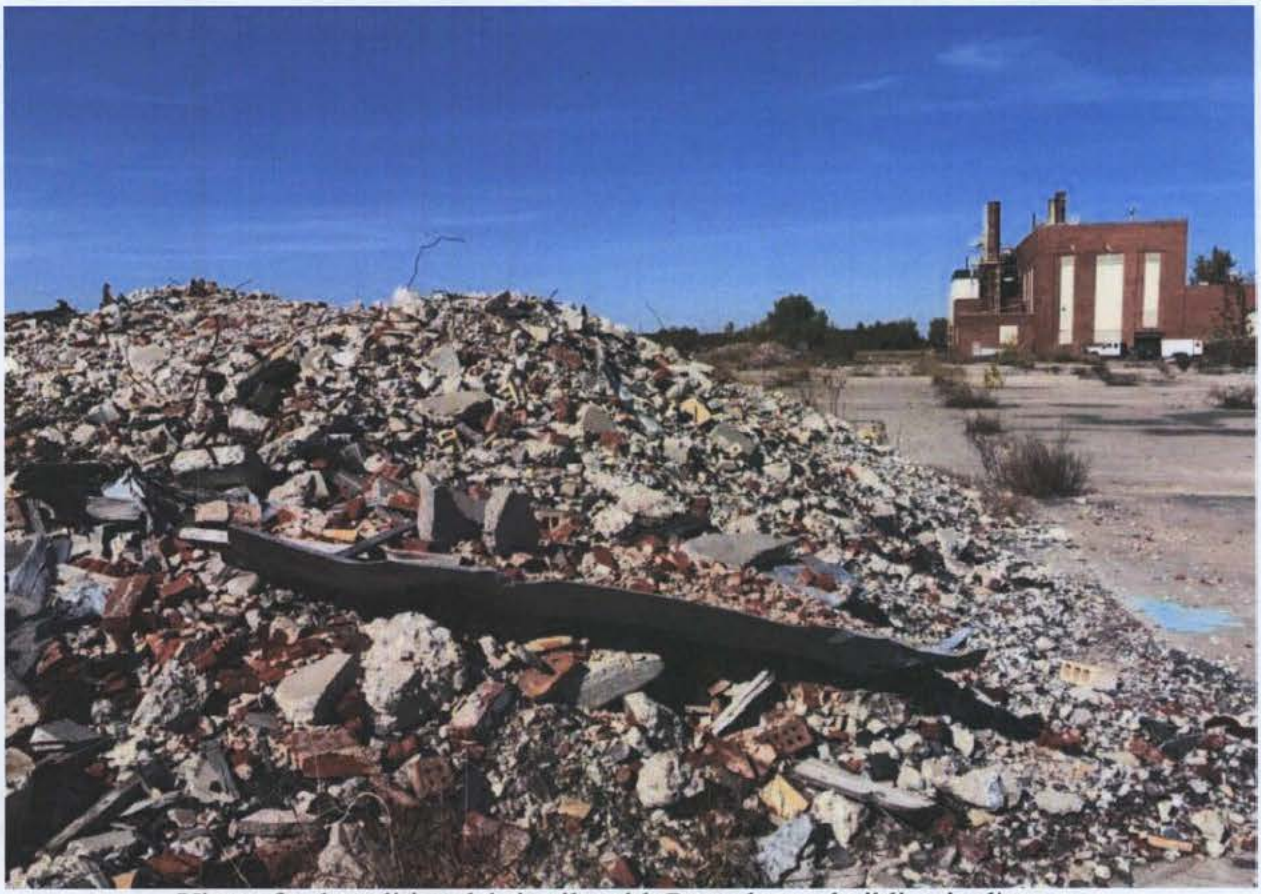
Herbicides:
There are approximately four containers of herbicide onsite; however, the specific manufacture and ingredients are unspecified. One of the most common herbicide used is 2, 4-Dichlorophenoxyacetic acid (2, 4-D). It generally has moderate toxicity to birds and mammals and is slightly toxic to fish and aquatic invertebratesThe International Agency for Research on Cancer classifies 2,4-D as a possible carcinogen

to humans while the United States EPAdoes not. 2, 4-D is a regulated hazardous pollutant or contaminant under the Safe Drinking Water Act. It is also designated as a hazardous substance under 40 CFR § 302.4.

Surfactants:
This product is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. The International Agency for Research on Cancer designates the components of this product as being possibly carcinogenic to humans by inhalation. It is also toxic to aquatic life with long lasting effects and noted bioaccumulation. Components of this product have also been categorized under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III), with acute and chronic health hazard.

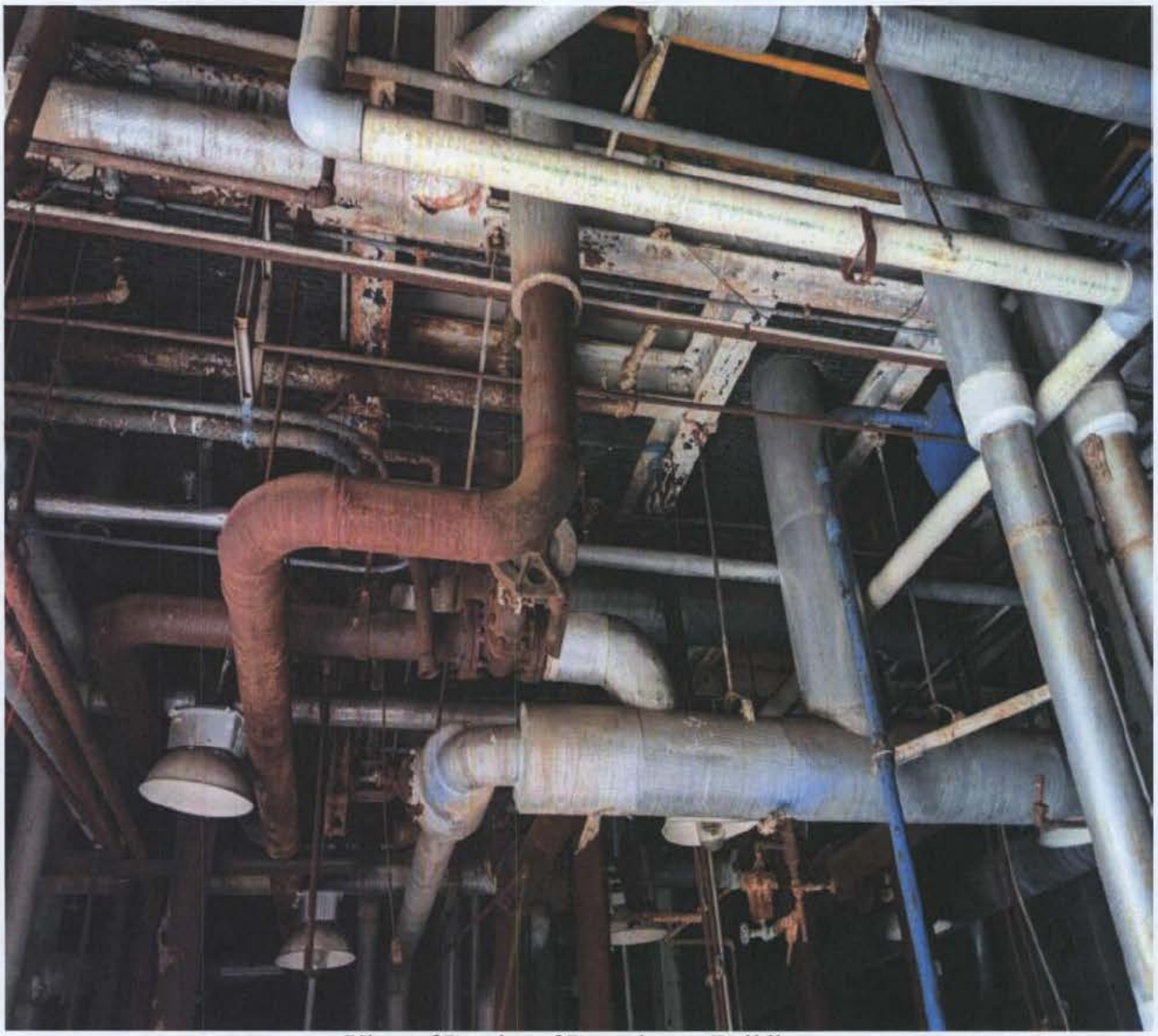
Fluorescent Lights Bulbs:
There are over 2,000 fluorescent lightbulbs onsite, which are not secured from being broken open. The main hazard to human health is the mercury contained within the lightbulbs. Mercury is defined by CERCLA Section 101(14), 42 U.S.C. § 9601(14), and further identified by 40 CFR § 302.4 as a hazardous substance. According to ATSDR, mercury is a neurotoxin and can be fatal if inhaled or swallowed, can cause developmental damage to organs in unborn children, and cause damage to the renal system. It is also very toxic to aquatic life with long lasting effects.

Carbon Black:
There is approximately 174 cubic yards of carbon black stored onsite. Carbon black is listed by the International Agency for Research on Cancer as a Group 2B carcinogen; *possibly carcinogenic to humans*. It is also classified as hazardous as a combustible dust by the United States 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) and is listed on the Chemical Hazard Information Profile (CHIP) list under the Toxic Substance Control Act.



View of a demolition debris pile with Powerhouse building in distance

View of Powerhouse Building exterior



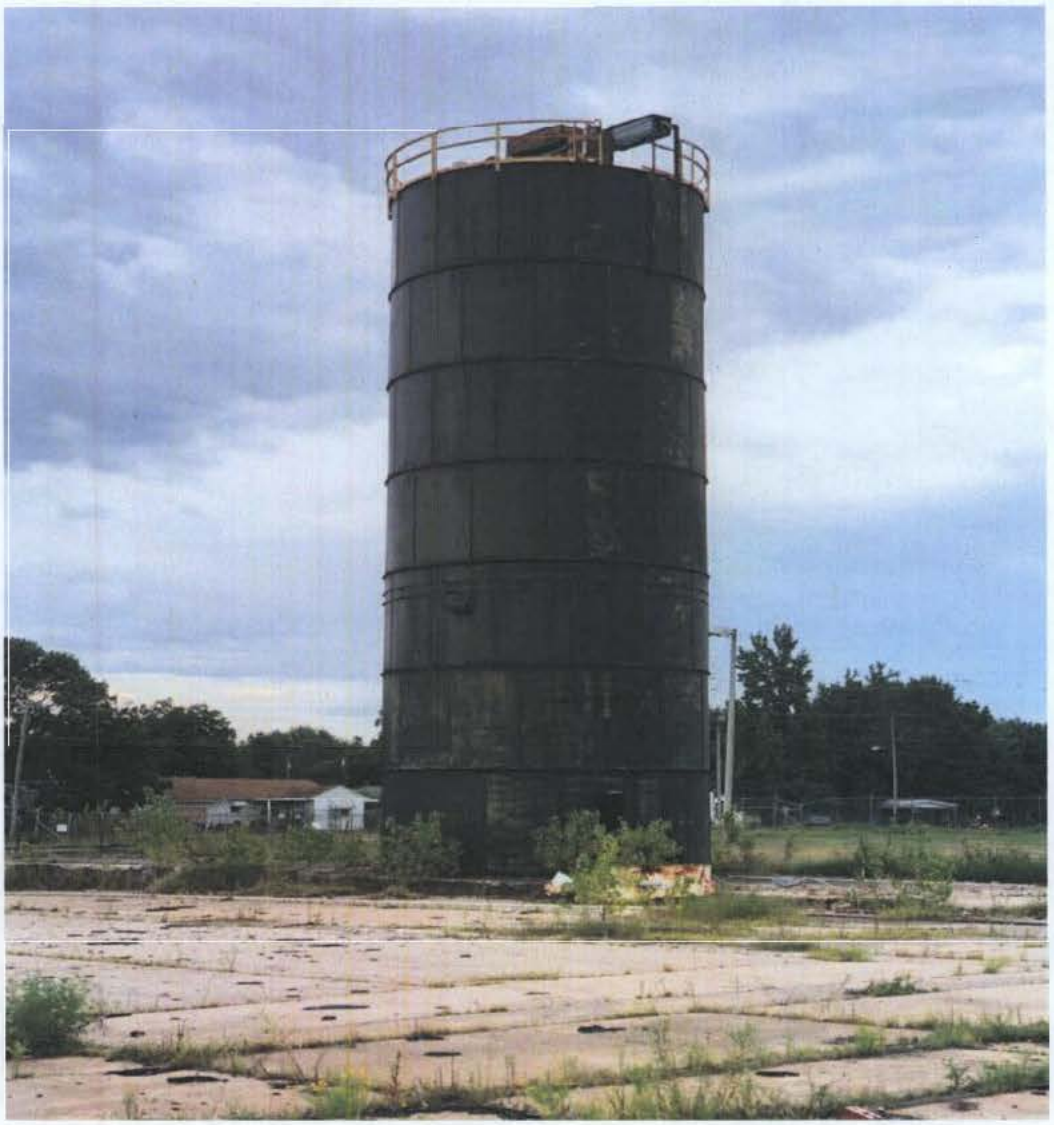
View of Interior of Powerhouse Building

View of Interior of Powerhouse Building

View of Oven Building

View of Brick Office Building

View of a typical "utility pit" in foundation of former Goodrich Plant



View of Carbon Black Tank

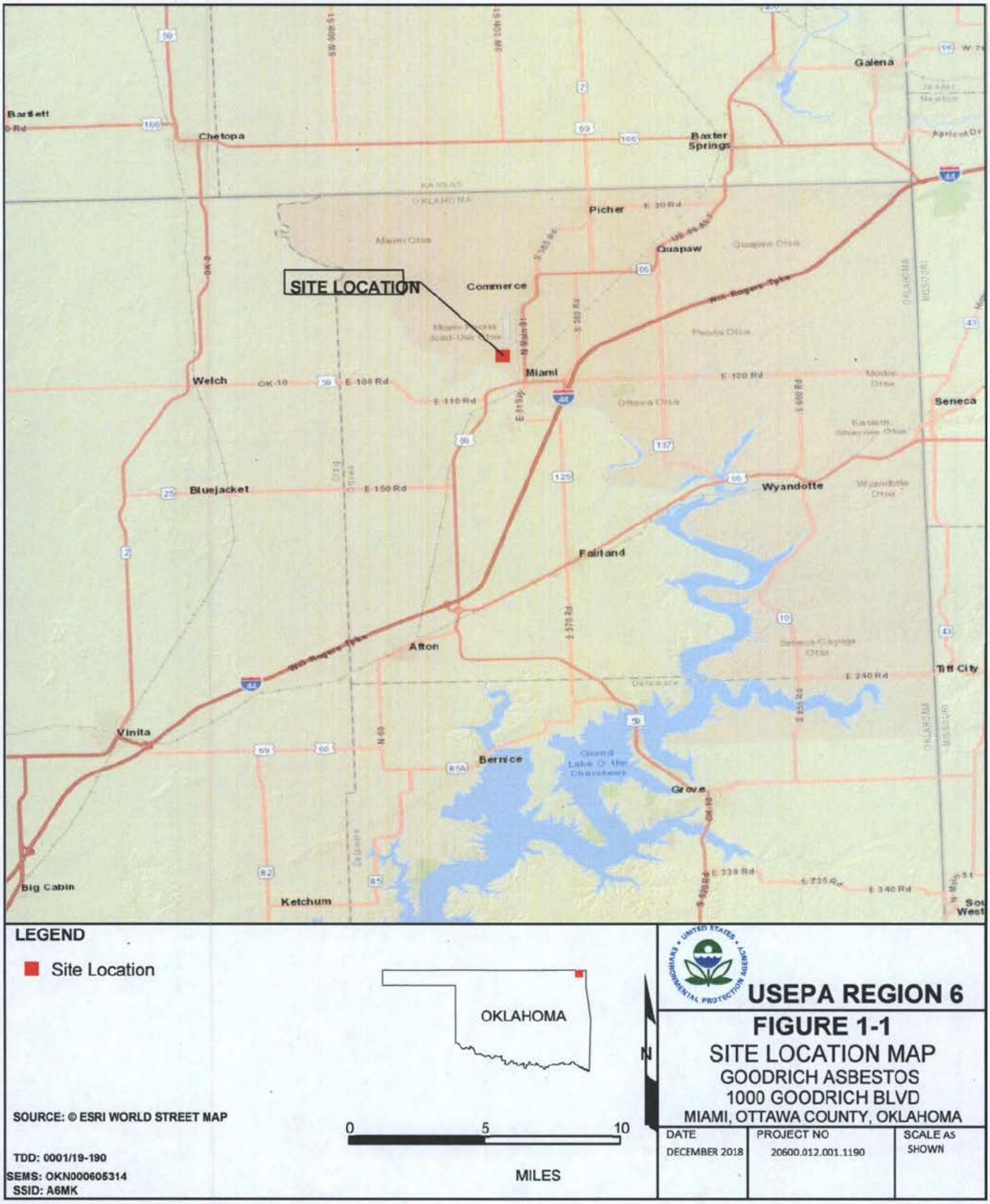
View of Autoclave Basement with Asbestos Wrap Material

View of Interior of Conex Box with bagged Asbestos Materials

View of Abandoned Hazardous Wastes in Southern Warehouse – Fluorescent Bulbs on Right

2. Physical Location

The physical address of the Goodrich Site is 1000 Goodrich Boulevard, Miami, Oklahoma. The Goodrich property is located on the west side of the city, and the entire property occupies approximately 164 acres of land. It is bounded to the south by Goodrich Boulevard, to the east by H Street Northwest, to the west by P Street Northwest, and to the north by city-owned property used by the Miami Solid Waste Transfer Station and Recycle Center and several adjacent soccer fields.



Site location

LEGEND

Study Area Boundary

SOURCE: © NATIONAL GEOGRAPHIC TOPO; ESRI

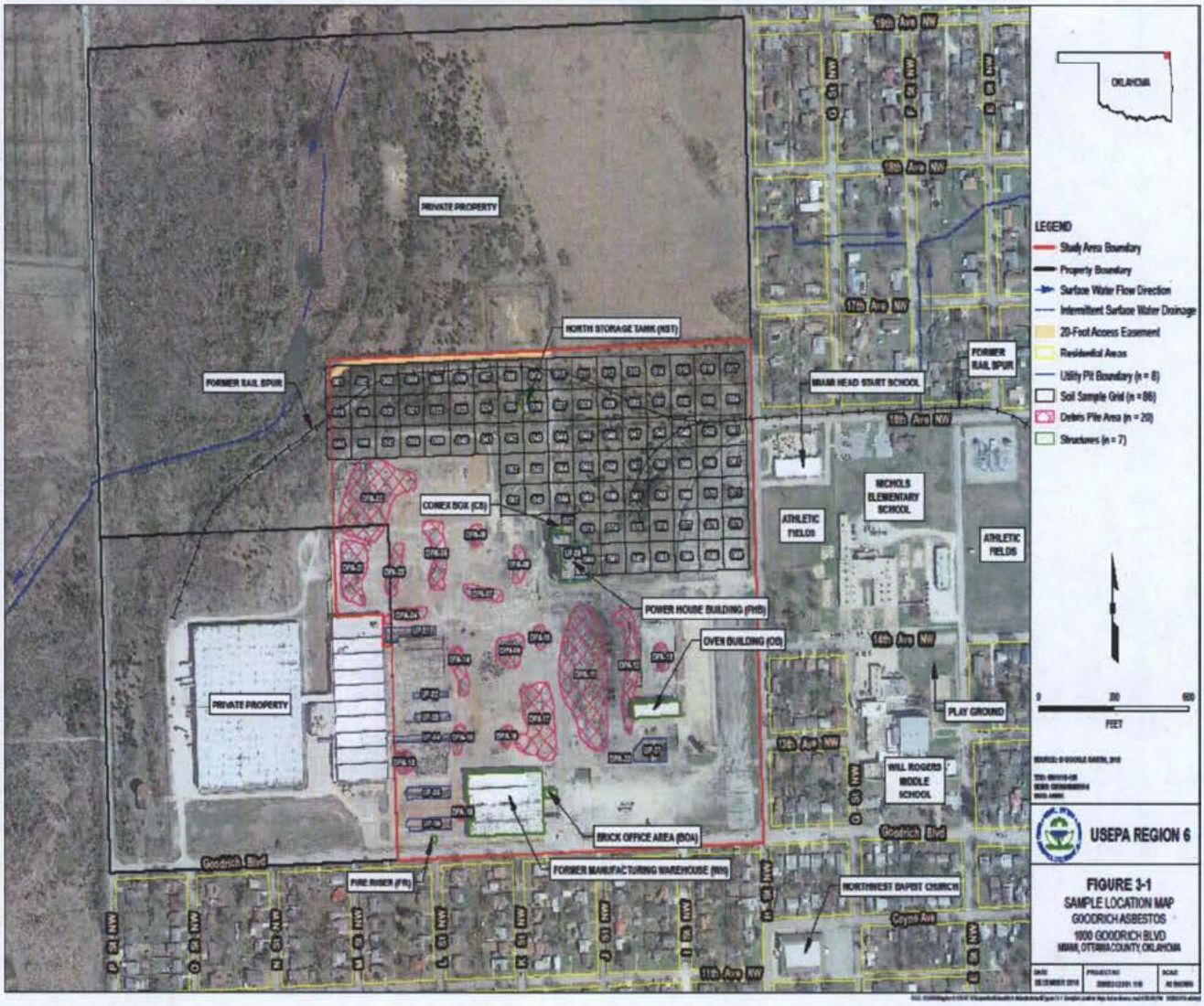
TDD: 0001/19-190
EMS: OKN000605314
SSID: A6MK

USEPA REGION 6

FIGURE 1-2
SITE AREA MAP
GOODRICH ASBESTOS
1000 GOODRICH BLVD
MIAMI, OTTAWA COUNTY, OKLAHOMA

DATE	PROJECT NO	SCALE
DECEMBER 2018	20600.012.001.1190	AS SHOWN

Site Location



Goodrich Asbestos Site Layout

3. Site Characteristics

The Goodrich plant was constructed in the mid-1940's and ceased operations in 1986. The plant was approximately 1.6 million square feet in size and sits on a 164-acre parcel of land on the west side of the city of Miami. The areas bordering the south and east sides of the facility are residential and include three schools directly east of the facility: Miami Head Start School, Nichols Elementary School and Will Rogers Middle School. The area west of the facility is a mix of woodlands and agricultural fields. The area directly north of the facility contains a small woodland-agricultural area as well as a waste transfer station/recycling facility with adjacent soccer fields (10 fields total). The population within one half mile radius of the Site's perimeter is 2,112. The population within a one-mile radius is 5,382.

After the plant shut down in 1986, the facility sat idle until approximately 2014. At that time, the owner of the property, under consent agreements with the ODEQ and the City of Miami, demolished approximately 80% of the former structure. Removal of ACM was part of the agreements with the State and City. A large part of the remaining 20% of the structure was under lease agreements with two commercial operations who still operate on the property. These commercial operations are located on the western edge of the former Goodrich plant. Included in the remaining structures is the Powerhouse Building which is approximately 15,300 square feet in size. The Powerhouse Building had approximately 4,875 linear feet and 16,817 square feet of ACM still inside the structure and as of the writing of this amended Action Memo, most of the asbestos has been removed. All of the demolition debris, including the debris from the two unstable structures (Oven Building and Brick Office Building) totaling approximately 15,600 cubic yards, was removed by the EPA during the Emergency Removal Action conducted in the summer of 2019.

With the exception of the two companies operating on the west side of the facility, the property is vacant. The southern, eastern, western, and part of the northern perimeter of the Site has a chain link fence. The western portion of fencing on the Site was installed by the EPA to secure the Site, as part of the Phase 1 Removal. The majority of the northwest property line is not fenced; however, access from this side of the property is limited due to the dense vegetative growth. Previously vandals routinely cut holes in the fencing primarily on the northern and eastern perimeter. Trespassers accessed the Powerhouse Building and the Autoclave basement by removing or damaging various doors and coverings.

4. Releases or threatened release into the environment of a hazardous substance, pollutant or contaminant

Asbestos is a hazardous substance as defined by 40.C.F.R. Section 302.4 of the NCP and Section 101 (14) of CERCLA, (42 U.S.C. Section 9601(14)). Assessment activities conducted at the Site in November 2018, show large volumes of friable and non-friable asbestos material released to the environment. Following demolition of most of the former Goodrich facility, most of the demolition debris, which includes ACM, was left in piles scattered across the Site. Levels of asbestos in the piles ranged from trace levels up to 40%. As mentioned above, as of the writing of this Action Memo the vast majority of the demolition debris piles along with the Oven Building and Brick Office building was removed by the EPA during the Emergency Removal Action conducted in the summer of 2019.

Sampling from inside the Powerhouse Building found significant quantities of friable insulation and debris. The building is approximately 80 years old and is not completely sealed. It has multiple open vents in the walls (i.e, louvered panels at the top of the structure), broken windows, and open doors

located around the structure. Because this building is not airtight and is old and not being maintained, a threat of release is possible and becomes more likely as each year passes. Also, because trespassers are accessing the property, they were being exposed to the asbestos materials inside the Powerhouse Building. The trespassers appeared to be salvaging materials from within the building that may contain asbestos and removing these materials off-site, possibly into their homes and the community. As of the writing of this amended Action Memo, the vast majority of the asbestos inside the Powerhouse has been abated and should be completed by the end of January 2020.

The Autoclave basement area is located on the northwest corner of the former plant's foundation. The basement is partially above ground, and access is easily made via a staircase and multiple openings in the old foundation floor and window wells on the exterior above ground portion of the basement. As with the Powerhouse building, the autoclave basement is not airtight and is old and not being maintained, a threat of release is possible and becomes more likely as each year passes. The EPA's assessment of the Autoclave basement showed approximately 2,240 linear feet of asbestos wrapped insulation material, as well as asbestos contaminated debris on the floor. Also, as with the Powerhouse building, trespassers appeared to be salvaging materials from within the basement that may contain asbestos and removing these materials off-site, possibly into their homes and the community. As of the writing of this amended Action Memo, the vast majority of the asbestos in the Autoclave basement has been removed and should be completed by the end of January 2020.

During the EPA's assessment it was also noted that the previous owner has left multiple containers inside what is referred to as the Southern Warehouse. These containers, many in poor condition, hold a variety of CERCLA defined pollutants and contaminants including waste paints, solvents, floor stripper, herbicides-pesticides, roof coating, surfactants, and bleach. Also, approximately 2,500 intact fluorescent bulbs were located in piles inside the warehouse. Fluorescent bulbs typically contain small amounts of elemental mercury. The Southern Warehouse is a 1940's era structure that is showing signs of deterioration due to neglect since the facility closed in 1986. The structure is open on three sides allowing easy access, and the roof has multiple areas where roofing material is missing allowing for large amounts of rain water to enter the facility during storm events. Also, again because trespassing is a persistent problem with this site, the risk of vandals removing these wastes and dumping them out into the environment (i.e., drains, creeks, etc) is a realistic threat.

A large tank on the eastern edge of the Site was inspected by the EPA. The tank currently holds approximately 174 cubic yards of carbon black material. Carbon black is odorless, finely divided powder generated from the incomplete combustion of hydrocarbons. It may contain Polycyclic Aromatic Hydrocarbons (PAHs) which are formed during its manufacture and become adsorbed on the carbon black. Carbon black was used in the manufacture of tires to add color to the rubber. OSHA lists carbon black as a combustible dust, an inhalation hazard, and a hazardous material. It is considered a pollutant or contaminant under CERCLA. Access to the material can be made through a door at the base of the tank. This tank, like all structures on the site, is old and beginning to deteriorate. There has been no maintenance on this structure since the plant closed in 1986 and with time, as the tank continues to deteriorate, there is an increasing risk of release into the environment.

Finally, the EPA assessed seven utility pits, located primarily on the western edge of the Site. These pits are open to the environment and contain an estimated 2,509 cubic yards of asbestos containing debris primarily in the form of insulated pipe wrap as well as debris from the demolished structure that landed in the pits. As of the writing of this amended Action Memo, the majority of the asbestos from the utility pits has been removed and completion is expected by the end of January 2020.

5. NPL Status:

The Site is not currently on the NPL.

6. Maps, Pictures and other graphic representations

Attachment 1 ATSDR Public Health Statement for Asbestos
Attachment 2 OSHA Fact Sheet on Asbestos
Attachment 3 Enforcement Addendum (Confidential/FOIA Exempt)

B. Other Actions to Date

In October of 2018, the ODEQ requested assistance from the EPA in securing access to the facility. Vandals have routinely cut holes in the perimeter fence to gain access to the property and have also removed doors/windows, including boarded up doors and windows, to gain access to the Powerhouse Building and other structures on-site. The EPA responded on four separate occasions from November 2018 to February 2019 by repairing holes in the perimeter fence and re-boarding doors and windows to the Powerhouse Building and Autoclave basement.

The week of November 12, 2018, at the request of the ODEQ, the EPA conducted a removal assessment of the entire Site. Results from that assessment are described in Section II.A.1 above.

The Region 6 Superfund and Emergency Management Director provided verbal approval for an Emergency Removal Action at the Site (Phase 1) on May 2, 2019. An Emergency Removal Action began at the Site on June 4, 2019 to address the highest health risk priority at the Site, the debris piles (Phase 1). EPA Region 6 also notified EPA Headquarters of the decision to move forward with the emergency removal. One of the goals of this emergency removal was to remove the piles during the summer school break. Removal work involved the excavation and off-site disposal of approximately 16,000 tons of asbestos containing debris piles. The wet-demolition of the Oven Building and Brick Office Building was also included as part of this phase of work. All asbestos containing waste was hauled to the Prairieview Landfill near Lamar, Missouri and the American Environmental Landfill, in Sand Springs, Oklahoma. Phase 1 work was completed on October 15, 2019.

The second phase of removal also met the criteria for initiating a removal action under the National Contingency Plan (NCP), 40 CFR §300.415. A second Action Memo for Phase 2 removal work was approved by the Superfund Division Director on October 15, 2019, as concurred upon by the EPA Director of Emergency Management also on October 15, 2019. Removal work under Phase 2 began on October 16, 2019, and is on-going as of the date of this Amendment to the Phase 2 Action Memo.

C.. State and Local Authorities' Roles

1. State and Local Actions to Date

The ODEQ has been very involved with the former Goodrich facility over the last twenty years relating to both the asbestos contamination and a benzene plume in groundwater that emanates from the Site. The following is a summary of ODEQ activities at the Site:

Asbestos

- 6/26/1996 ODEQ Order with Ottawa Management Company Incorporated (OMCI) - Mandatory Injunction on Loose Asbestos.
- 9/3/1997 ODEQ Order with OMCI.
- 5/10/1998 ODEQ Order modifying mandatory injunction with OMCI. Per the order OMCI agreed to in part:
    - Repair or remove and properly dispose of all loose or significantly damaged ACM within the Powerhouse and above the basement of the building. Within 4-years, remove and lawfully dispose of all ACM from the interior of the Powerhouse.
    - Remove and lawfully dispose of all loose ACM (including soil) and Demolition Debris. and remove and dispose of all Demolition Debris located outside.
    - Remove and properly dispose of all ACM located above the basement of the Autoclave Area.
    - Sample, analyze, drain, and dispose of pit contents in the Warehouse Building.
    - Make it a condition of any transfer of ownership, all or partial, or of operations of the property, that the transferee must assume all of OMCI's obligations under this order.
    - Grant reasonable access to ODEQ for purposes of inspecting, verifying and sampling as ODEQ deems necessary.
- 4/30/2015 ODEQ Administrative Order to George Blakeney d/b/a Real Estate Remediation, LLC a/k/a Blakeney Company, Inc. (current owner).
    - Within 15 days of receipt of the order Respondent shall begin hauling the regulated solid waste to a permitted disposal Site.
    - Dispose of all regulated material at a permitted disposal facility no later than June 1, 2015.
    - Separate all regulated material from non-regulated material into separate and distinct piles no later than 30 days from the execution of this order.
    - Once the basements are filled with non-regulated material, encapsulate the top of the basements with at least eight inches of concrete and grade it to ground level within 30 days of filling the basements.
    - File a deed notice for areas where asbestos has been encapsulated within 30 days of fulfilling the requirements of this order.
    - Control fugitive dust and comply with ODOL regulations.
- 11/20/15 Emergency Order to George Blakeney d/b/a Real Estate Remediation, LLC a/k/a Blakeney Company, Inc.
    - Immediately wet or otherwise use ODEQ approved covering material on the oven building. Wetting shall occur daily until further notice from ODEQ.
    - Do not remove, move, or attempt to clean up the regulated asbestos-containing material (RACM) at the oven building in any manner without approval from ODEQ.
    - Submit a demolition and cleanup plan to ODEQ within forty-eight hours of receiving this Order.
    - EPA note: *This order was closed based on the advice of the ODEQ asbestos inspector who determined there was no RACM on the second floor of the Oven Building and no RACM was exposed to atmosphere. The Oven Building has since deteriorated and transite is breaking off the building and falling to the cement slab.*

Groundwater

- 10/9/1997 Order with Michelin North America, Inc. for remediation of wastes (specifically mineral spirits).
    - Set Site remediation goals for the benzene. ODEQ agreed to a remedial goal of 500 (Parts Per Billion) PPB.
- 9/14/18 Amendment to the Settlement Agreement of March 25, 1998, between Oklahoma, City of Miami, and BFG (N.K.A Goodrich Corporation)

2. Potential for Continued State/Local Response

The ODEQ will continue to assist in the cleanup within the limits of its resources.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health or Welfare

Current Site conditions meet the following factors, which indicate that the Site is a threat to the public health, welfare, and the environment, and that a second removal action is appropriate under Section 300.415(b) of the NCP, 40 C.F.R. § 300.415(b). Any or all of these factors may be present at a Site, yet any one factor may determine the appropriateness of a removal action under CERCLA authority.

1. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants; NCP Section 300.415(b)(2)(i)

Asbestos has been released to the environment at this Site. Both friable and non-friable asbestos has been detected in the Powerhouse building as well as in the pits and basements found across the Site. The estimates of asbestos containing materials is as follows:

- Powerhouse Building: 4,875 linear feet and 16,817 square feet
- Utility Pits: 2,509
- Autoclave Basement: 2,240 cubic yards

The Powerhouse building is approximately 80 years old and is not completely sealed. It has multiple open vents in the walls (i.e, louvered panels at the top of the structure), broken windows, and open doors located around the structure. Because this building is not airtight and is old and not being maintained, a threat of release is possible and becomes more likely as each year passes. Also, because trespassers are accessing the property, they are being exposed to the asbestos materials inside the Powerhouse Building. The trespassers appear to be salvaging materials from within the building that may contain asbestos and are removing these materials off-site, possibly into their homes and the community.

As with the Powerhouse building, the autoclave basement is not airtight and is old and not being maintained, a threat of release is possible and becomes more likely as each year passes. Also, as with the Powerhouse building, trespassers appear to be salvaging materials from within the basement that may contain asbestos and are removing these materials off-site, possibly into their homes and the community.

The bulk of the risk to human health results from the remaining asbestos containing materials listed above. To a lesser degree, but still posing a risk to human health and the environment are the following items :

- Waste carbon black (174 cubic yards)
- Conex Box of Asbestos Containing Insulation left by the previous owner (270 cubic yards).
- Miscellaneous hazardous goods abandoned in the southern warehouse including:
    - Fluorescent light bulbs containing elemental mercury (total count of 2,492)
    - Waste paints/solvents/bleach/pesticides-herbicides/floor strippers/Roof Coating/Surfactants

All asbestos containing materials, as well as any mercury in the fluorescent bulbs, located at the site are considered hazardous substances in accordance with CERCLA. The remaining materials are considered pollutants or contaminants under CERCLA. The above listed pollutants and contaminants, like the asbestos, pose a risk to human health and the environment and are being addressed under the original action memo.

Access to these areas of contamination can be made from areas along parts of the Site's northern perimeter, where no fencing exists. Trespassers have also cut multiple holes in the fence along other sides of the Site in order to gain access to the property. Trespassers have also accessed the Powerhouse Building by removing doors and windows. The nearest residents are located approximately 300 feet from the areas of contamination and three schools are located less than 100 feet from the Site's eastern perimeter. The carbon black tank, like all structures on the site, is old and beginning to deteriorate. There has been no maintenance on this structure since the plant closed in 1986 and with time, as the tank continues to deteriorate, there is an increasing risk of release into the environment.

Airborne exposure to asbestos may occur through the release of asbestos fibers from the multiple utility pits and basement areas and the deteriorating asbestos in the Powerhouse Building which is not sealed air-tight. Asbestos fibers may be dispersed by the motion of routine site activities such as walking or shoveling. Effects on the lungs are a major health concern from asbestos, as chronic (long-term) exposure to asbestos in humans via inhalation, can result in a lung disease termed asbestosis. Many occupational studies have reported that exposure to asbestos via inhalation can cause lung cancer and mesothelioma (a rare cancer of the membranes lining the abdominal cavity and surrounding internal organs).

Results from samples collected in the pits, basements, and inside the Powerhouse Building, indicate the presence of high levels of friable and non-friable asbestos. People accessing the property by means of trespassing or possible future commercial activity may release elevated levels of asbestos fibers into the air from these locations resulting in a risk to the health of the exposed persons.

Various chemicals, including those that are toxic to humans, are in containers of varying integrity inside the Southern Warehouse. There is potential for exposure of human populations to these chemicals, (i.e., fluorescent bulbs, paints, toluene, bleach, etc.) which are pollutants or contaminants as defined by CERCLA Section 101(14), 42 U.S.C. § 9601(14), and further identified by 40 CFR § 302.4. There is clear evidence of trespassers accessing the property for recreational purposes, even with the EPA's security modifications.The structure itself is in a deteriorating state. Rainwater routinely enters through the roof during storm events and therefore could spread the materials out into storm drains and nearby

drainage ditches. Vandalism of this building and its contents is also a concern due to the potential to spread these hazardous wastes into the environment.

2. Hazardous Substances or Pollutants or Contaminants in Drums, Barrels, Tanks or Other Bulk Storage Containers That May Pose a Threat of Release.

Approximately 160 drums, pails, and bottles of hazardous substances are located in the Southern Warehouse. There are also approximately 2,500 fluorescent bulbs stacked up inside the warehouse. A number of the chemical containers are in a decaying condition or have no lids/covers. A variety of hazardous wastes are exposed and therefore have the potential to spill or be released into the community.

3. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released; NCP Section 300.415 (b)(2)(v)

Miami, Oklahoma is located in a humid subtropical climate with cool, dry winters and hot, humid summers. The city averages 45 inches of rain per year. Ottawa County averages 53 thunderstorms per year and these storms are often severe and bring damaging straight-line winds, and torrential rains. Ottawa County is also located in what is commonly referred to as "Tornado Alley". During the period from 1950 to 2003, 32 tornadoes were recorded in Ottawa County which is roughly one tornado every other year. These weather conditions could cause further dispersion of asbestos contamination from the Site to neighboring residential areas, including the three schools and several parks nearby. The carbon black storage tank is also vulnerable to storm damage which could release the contents into the nearby community.

The predominant wind direction in Miami is from the south but varies based on seasons. The windiest time of year is from October to May, with March and April being the windiest months of the year. These winds can carry the asbestos to neighboring residences and businesses.

4. The availability of other appropriate federal or state response mechanisms to respond to the release; NCP Section 300.415(b)(2)(vii)

The EPA is working closely with the ODEQ and has shared all assessment data with the State. The EPA has also notified the ODEQ of the need to conduct a second phase of removal activity on the pits/basements, Carbon Black Tank, and the abandoned hazardous wastes in the Southern Warehouse in order to protect public health and the environment. The ODEQ is supportive of the EPA's plan to remove the contamination and has stated their willingness to assist with the removal within the limits of their resources.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances as well as pollutants and contaminants from this Site, if not addressed by implementing the response action in this Action Memorandum, may present an imminent and substantial endangerment to the public health, welfare, or the environment.

V. EXEMPTION FROM STATUTORY LIMITS

A. Emergency exemption to 12-month and $2 million statutory limitations:

Given the immediate risk to the public health via several pathways of exposure, an Emergency exemption to the 12-month and $2 million statutory limitation on removal actions was provided in the previous Emergency Action Memo signed by the Region 6 Superfund and Emergency Management Director on August 27, 2019.

1. Continued response actions are immediately required to prevent, limit, or mitigate an emergency.

Administrative Orders for asbestos removal and abatement issued by the ODEQ to previous property owners were never completed. Asbestos containing materials are now in a state of continued deterioration and left open to the environment. This removal action currently includes the removal of asbestos contaminated materials and other hazardous wastes from areas of the Site not previously addressed in the Phase 1 Emergency Removal Action. These wastes can be accessed by the public and pose a risk to nearby schools and residential populations.

2. There is an immediate threat to public health or welfare or the environment.

Asbestos containing materials are present on the site which is located in a residential area that includes three schools immediately adjacent to the perimeter of the site. Asbestos fibers from these materials can easily migrate off the site via wind and site activities and affect public health at these nearby residences and schools. Also, trespassing on the site has been documented by both ODEQ and the EPA. These trespassers can be exposed to the asbestos remaining on the site as well as potentially remove materials that may contain asbestos and take these materials into nearby homes where additional persons may be exposed.

3. Assistance will not otherwise be provided on a timely basis.

The State of Oklahoma has indicated that they would like the EPA to take the lead on addressing the non-groundwater related contamination at this Site. ODEQ has made multiple attempts via their enforcement authorities to direct the previous owner to return to the site and finish the asbestos cleanup. These enforcement attempts were unsuccessful and did not compel the owner to take responsibility. The cost to complete the cleanup of this site, both phase 1 and phase 2, are beyond the financial capabilities of the State, which is why ODEQ asked for EPA assistance. The City of Miami has no ability to conduct a cleanup.

VI ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed Action Description

To mitigate the remaining threats to the public health posed by the Site not previously addressed during the Phase 1 Emergency Removal Action, the removal actions outlined below are on-going at the site. This Phase 2 work relates to the seven utility pits, the Powerhouse Building, the Autoclave basement, the Carbon Black Tank, and the hazardous materials abandoned in the Southern Warehouse. The EPA's

goal is to remove all remaining threats to public health and the environment at this Site. Phase 2 removal work will involve the following:

a. Continue to assess and characterize threats posed by the Site.

b. Continue to implement security measures such as fencing, gates, locks, cameras, and/or guards to limit access to the areas of contamination.

c. Excavate and remove asbestos-contaminated materials/debris from the seven utility pits.

d. Remove all asbestos-containing materials from the Autoclave Basement area.

e. Conduct full National Emissions Standards for Hazardous Air Pollutants (NESHAPS) compliant asbestos abatement of the Powerhouse Building.

f. Bulk and re-pack any compatible wastes left in the Southern Warehouse in preparation for transport and disposal.

g. Remove all carbon black material from the on-site storage tank.

h. Arrange for disposal of these wastes at EPA-approved off-site disposal facilities in accordance with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), and 40 CFR § 300.440 (the Off-Site Rule), and transport all waste materials in accordance with Department of Transportation rules and regulations, as appropriate.

i. Suppress dust during the removal action.

j. Monitor and sample, as necessary, personal and ambient air during removal activities.

k. If necessary, where any waste is left on-site, the EPA will coordinate with the current owner of the Site property and with the appropriate State and local authorities for implementation of institutional controls where any contamination (non-groundwater related) remains above the action levels.

l. Requirements under OSHA of 1970, 29 U.S.C. § 651 et seq., and under the laws of a State with an approved equivalent worker safety program, as well as other applicable safety and health requirements, will be followed. Federal OSHA requirements include, among other things, Hazardous Materials Operation, 29 CFR. Part 1910, as amended by 54 Fed. Reg. 9317 (March 1989), all OSHA General Industry (29 CFR Part 1910) and Construction (29 CFR Part 1926) standards wherever they are relevant, as well as OSHA record keeping and reporting regulations, and EPA regulations set forth in 40 CFR Part 300 relating to the conduct of work at Superfund sites. The Removal Action will meet the specific Federal OSHA requirements for asbestos including 29 CFR § 1910.1001, which applies to all occupational exposures to asbestos in all industries covered by OSHA except as otherwise specified in the Act.

2. Contribution to remedial performance

It is anticipated that no remedial action will take place at the Site (beyond the actions being undertaken by the ODEQ and a responsible party under ODEQ oversight relating to the groundwater contamination). If any remedial action should occur, the completed removal action is consistent with the remedial action as it removes the source of the contamination.

Description of alternative technologies

Removal and abatement of the asbestos-contaminated materials with subsequent transport and disposal of this material at an approved landfill is the most viable option for the piles and structures. This action also involves the removal of waste that is already in containers; consequently, removal of the containerized waste was the only technology considered. No alternative technologies were considered for this Site.

3. Applicable or relevant and appropriate requirements (ARARs)

The removal action is being conducted to eliminate the actual or potential exposure to hazardous substances, pollutants, or contaminants pursuant to the CERCLA, 42 U.S.C. S 9601 et seq. in a manner consistent with the National Contingency Plan, 40 CFR Part 300. As per 40 CFR Section 300.415(j), fund-financed removal actions under CERCLA § 104 and § 106 shall, to the extent practicable considering the exigencies of the situation, attain the ARARs under Federal environmental law. The following is an analysis of ARARs for this action:

The EPA is basing its removal of the contaminated material on sample data that show elevated concentrations of asbestos ranging from trace to 80%. Also, the EPA will remove abandoned non-asbestos hazardous materials (i.e., mercury in fluorescent bulbs, waste paints, paint thinners, pesticides, and carbon black) that also pose a risk to public health and the environment.

Location-specific ARARs - All proposed activities at the Site are compliant with any location-specific ARARs including those regarding Cultural Resources. Based on the Agency's knowledge of the Site, no additional cultural resource work is required.

Action-specific ARARs – The proposed Removal Action, which pertains to the excavation/removal and abatement of asbestos-containing materials, and transportation and off-site disposal of asbestos, as well as the removal of other non-asbestos hazardous materials, will comply with Federal and State ARARs to the extent practicable.

The renovation and demolition of buildings containing asbestos are regulated by the EPA under the NESHAP, 40 CFR Part 61, Subpart M which is found under Section 112 of the Clean Air Act (CAA). Asbestos-containing material regulated under the NESHAP is referred to as "regulated asbestos-containing material" (RACM). RACM is defined in § 61.141 of the NESHAP and includes: (1) friable asbestos-containing material; (2) Category I nonfriable ACM that has become friable; (3) Category I nonfriable ACM that has been or will be sanded, ground, cut, or abraded; or (4) Category II nonfriable ACM that has already been or is likely to become crumbled, pulverized, or reduced to powder. If the coverage threshold for RACM is met or exceeded in a renovation or demolition operation, then all friable ACM in the operation, and in certain situations, nonfriable ACM in the operation, are subject to the NESHAP.

Debris in the utility pits resulting from historic demolition activities on-site contain Category I nonfriable ACM that has become friable and Category II nonfriable ACM that has become crumbled and pulverized in the demolition activities. Since the utility pit debris exceed asbestos reporting unit thresholds and contain RACM, removal efforts are subject to 40 CFR Part 61, Subpart M.

To-be-considered (TBCs) - In addition to ARARs, other advisories, criteria, or guidance that may be useful in developing the remedy were, as appropriate, identified and considered, following these considerations, none were identified.

4. Project Schedule

The EPA initially estimated that the total duration of the second phase of removal activities would require approximately three months. Due to the fact that additional ERRS contractor crew was needed to be mobilized to the site to try to maintain this schedule, costs have increased and additional funding is now needed to complete Phase 2 removal activities.

B. Estimated Costs

Extramural Costs:	**Initial Ceiling**	**Increase**	**New Ceiling**
Cleanup Contractor (ERRS) (estimated)	$1,386,000	$249,000	$1,635,000
START (estimated)	$247,118	0	$247,118
Phase 2 Extramural Subtotal	**$1,633,118**	**$249,000**	**$1,882,118**
Extramural Contingency (20%)	$326,624	$49,800	$376,424
Phase 2 Extramural w/ contingency	**$1,959,742**	**$298,000**	**$2,258,542**
Prior Emergency Removal (Nov. 2018)	$17,200	0	
Prior Emergency Removal – Phase 1 (est.)	$2,400,000	0	
TOTAL REMOVAL ACTION COST	**$4,376,942**		**$4,675,742**

VII. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

If the actions described in this Action Memorandum are not completed, there would be a continuing threat to human health. Asbestos will continue to be exposed on the surface of this property as well as inside publicly accessible deteriorating structures. The release of asbestos into the environment has already occurred and possibly exacerbated by routine disturbances made by trespassers onto the property. There is also a threat of release of other hazardous materials abandoned on the Site, which would pose a risk to public health and the environment. These potential releases pose a significant threat to the residents who reside next to the Site as well as students and staff at the three schools immediately adjacent to the Site.

VIII. OUTSTANDING POLICY ISSUES

Asbestos removal actions have been conducted by the EPA at other locations around the country. This removal action does not set a precedent but, is considered nationally significant or precedent setting based on the EPA's policy regarding CERCLA actions at asbestos sites. EPA Region 6 coordinated with

EPA Headquarters and the Director of Emergency Management concurred on Region 6's Phase 2 Action Memo. There are no outstanding policy issues related to the proposed removal action at this Site.

IX. ENFORCEMENT

See Enforcement Strategy: (Attachment 3 Enforcement Confidential/FOIA Exempt Addendum attached to this Action Memo). The Enforcement Attachment describes the efforts that have been made to identify potentially responsible parties (PRPs) associated with the Site and to compel any identified PRPs to undertake the removal activities described in this Action Memorandum.

The revised total cost for this Phase 2 time-critical removal action, based on full cost accounting practices that will be eligible for cost recovery, is estimated to be $3,542,724.43

The total cost for all removal actions at this Site, based on full cost accounting practices that will be eligible for cost recovery, is estimated to be $7,392,363.91

Phase 2 Removal Action:

(Direct Costs)		(Indirect Costs)	= **Estimated EPA Cost for Phase 2 Removal Action**
(Direct extramural + Direct intramural)	+	*[(Region-specific Indirect Cost Rate) x (Direct Costs)]*	

$2,258,542+ $150,000 +(47.09% ($2,258,542 + $150,000)) = $3,542,724.43

All Combined Removal Actions for this Site:

(Direct Costs)		(Indirect Costs)	= **Estimated EPA Cost for All Removal Actions at this Site**
(Direct extramural + Direct intramural)	+	*[(Region-specific Indirect Cost Rate) x (Direct Costs)]*	

$4,675,742+ 350,000 +(47.09% ($4,376,942 + $350,000)) = $7,392,363.91

Direct costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2002. The estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only, and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor the deviation of actual total costs from this estimate will affect the United States' right to cost recover.

X RECOMMENDATION

This amended Action Memorandum documents the approval of a ceiling increase in order to complete the second phase time-critical removal action at the Goodrich Asbestos Site, Miami, Ottawa County, Oklahoma, developed in accordance with CERCLA, 42 U.S.C.§ 9601 et seq., and consistent with the NCP, 40 C.F.R. Part 300. An emergency exemption to the $2 million and 12 month statutory limitation

was previously approved in the Emergency Removal Action Memo signed on August 27, 2019. This decision is based on the administrative record for the Site.

Conditions at the Site meet the criteria as defined by Section 300.415(b) of the NCP for a second phase of removal action. This second phase of work also meets the $2 million and 12 month exemption criteria. The total project ceiling for this second phase of work at the Site as approved by the Superfund and Emergency Management Division Director is $2,258,542

APPROVED: _____ DATE: 2/19/20

Wren Stenger, Director
Superfund and Emergency Management Division (SED)

Attachment 1: ATSDR Tox FAQs for Asbestos

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

ASBESTOS
CAS # 1332-21-4

Division of Toxicology ToxFAQs™ September 2001

This fact sheet answers the most frequently asked health questions (FAQs) about asbestos. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, individual susceptibility and personal habits, and whether other chemicals are present.

HIGHLIGHTS: Exposure to asbestos usually occurs by breathing contaminated air in workplaces that make or use asbestos. Asbestos is also found in the air of buildings that are being torn down or renovated. Asbestos exposure can cause serious lung problems and cancer. This substance has been found at 83 of the 1,585 National Priorities List sites identified by the Environmental Protection Agency (EPA).

What is asbestos?

Asbestos is the name given to a group of six different fibrous minerals (amosite, chrysotile, crocidolite, and the fibrous varieties of tremolite, actinolite, and anthophyllite) that occur naturally in the environment. Asbestos minerals have separable long fibers that are strong and flexible enough to be spun and woven and are heat resistant. Because of these characteristics, asbestos has been used for a wide range of manufactured goods, mostly in building materials (roofing shingles, ceiling and floor tiles, paper products, and asbestos cement products), friction products (automobile clutch, brake, and transmission parts), heat-resistant fabrics, packaging, gaskets, and coatings. Some vermiculite or talc products products may contain asbestos.

What happens to asbestos when it enters the environment?

Asbestos fibers can enter the air or water from the breakdown of natural deposits and manufactured asbestos products. Asbestos fibers do not evaporate into air or dissolve in water. Small diameter fibers and particles may remain suspended in the air for a long time and be carried long distances by wind or water before settling down. Larger diameter fibers and particles tend to settle more quickly.

Asbestos fibers are not able to move through soil. Asbestos fibers are generally not broken down to other compounds and will remain virtually unchanged over long periods.

How might I be exposed to asbestos?

We are all exposed to low levels of asbestos in the air we breathe. These levels range from 0.00001 to 0.0001 fibers per milliliter of air and generally are highest in cities and industrial areas.

People working in industries that make or use asbestos products or who are involved in asbestos mining may be exposed to high levels of asbestos. People living near these industries may also be exposed to high levels of asbestos in air.

Asbestos fibers may be released into the air by the disturbance of asbestos-containing material during product use, demolition work, building or home maintenance, repair, and remodeling. In general, exposure may occur only when the asbestos-containing material is disturbed in some way to release particles and fibers into the air.

Drinking water may contain asbestos from natural sources or from asbestos-containing cement pipes.

How can asbestos affect my health?

Asbestos mainly affects the lungs and the membrane that surrounds the lungs. Breathing high levels of asbestos fibers for a long time may result in scar-like tissue in the lungs and in the pleural membrane (lining) that surrounds the lung. This disease is called asbestosis and is usually found in workers exposed to asbestos, but not in the general public. People with asbestosis have difficulty breathing, often a cough, and in severe cases heart enlargement. Asbestosis is a serious disease and can eventually lead to disability and death.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, Public Health Service
Agency for Toxic Substances and Disease Registry

ToxFAQs™ Internet address is http://www.atsdr.cdc.gov/toxfaq.html

Breathing lower levels of asbestos may result in changes called plaques in the pleural membranes. Pleural plaques can occur in workers and sometimes in people living in areas with high environmental levels of asbestos. Effects on breathing from pleural plaques alone are not usually serious, but higher exposure can lead to a thickening of the pleural membrane that may restrict breathing.

How likely is asbestos to cause cancer?

The Department of Health and Human Services (DHHS), the World Health Organization (WHO), and the EPA have determined that asbestos is a human carcinogen.

It is known that breathing asbestos can increase the risk of cancer in people. There are two types of cancer caused by exposure to asbestos: lung cancer and mesothelioma. Mesothelioma is a cancer of the thin lining surrounding the lung (pleural membrane) or abdominal cavity (the peritoneum). Cancer from asbestos does not develop immediately, but shows up after a number of years. Studies of workers also suggest that breathing asbestos can increase chances of getting cancer in other parts of the body (stomach, intestines, esophagus, pancreas, and kidneys), but this is less certain. Early identification and treatment of any cancer can increase an individual's quality of life and survival.

Cigarette smoke and asbestos together significantly increase your chances of getting lung cancer. Therefore, if you have been exposed to asbestos you should stop smoking. This may be the most important action that you can take to improve your health and decrease your risk of cancer.

How can asbestos affect children?

We do not know if exposure to asbestos will result in birth defects or other developmental effects in people. Birth defects have not been observed in animals exposed to asbestos.

It is likely that health effects seen in children exposed to high levels of asbestos will be similar to the effects seen in adults.

How can families reduce the risk of exposure to asbestos?

Materials containing asbestos that are not disturbed or deteriorated do not, in general, pose a health risk and can be left alone. If you suspect that you may be exposed to asbestos in your home, contact your state or local health department or the regional offices of EPA to find out how to test your home and how to locate a company that is trained to remove or contain the fibers.

Is there a medical test to show whether I've been exposed to asbestos?

Low levels of asbestos fibers can be measured in urine, feces, mucus, or lung washings of the general public. Higher than average levels of asbestos fibers in tissue can confirm exposure but not determine whether you will experience any health effects.

A thorough history, physical exam, and diagnostic tests are needed to evaluate asbestos-related disease. Chest x-rays are the best screening tool to identify lung changes resulting from asbestos exposure. Lung function tests and CAT scans also assist in the diagnosis of asbestos-related disease.

Has the federal government made recommendations to protect human health?

In 1989, EPA banned all new uses of asbestos; uses established before this date are still allowed. EPA established regulations that require school systems to inspect for damaged asbestos and to eliminate or reduce the exposure by removing the asbestos or by covering it up. EPA regulates the release of asbestos from factories and during building demolition or renovation to prevent asbestos from getting into the environment.

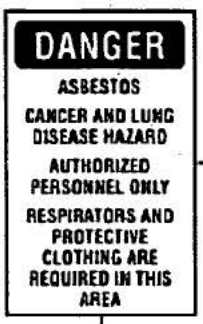
EPA has proposed a concentration limit of 7 million fibers per liter of drinking water for long fibers (lengths greater than or equal to 5 µm). The Occupational Safety and Health Administration has set limits of 100,000 fibers with lengths greater than or equal to 5 µm per cubic meter of workplace air for 8-hour shifts and 40-hour work weeks.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 2001. Toxicological Profile for Asbestos. Update. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs™ Internet address is http://www.atsdr.cdc.gov/toxfaq.html. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

Attachment 2: OSHA Fact Sheet on Asbestos



OSHA FACT Sheet

Asbestos

What is asbestos?

Asbestos is the name given to a group of naturally occurring minerals used in certain products, such as building materials and vehicle brakes, to resist heat and corrosion. Asbestos includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these materials that have been chemically treated and/or altered.

What are the dangers of asbestos exposure to workers?

The inhalation of asbestos fibers by workers can cause serious diseases of the lungs and other organs that may not appear until years after the exposure has occurred. For instance, asbestosis can cause a buildup of scar-like tissue in the lungs and result in loss of lung function that often progresses to disability and death. Asbestos fibers associated with these health risks are too small to be seen with the naked eye, and smokers are at higher risk of developing some asbestos-related diseases.

Are you being exposed to asbestos?

General industry employees may be exposed to asbestos during the manufacture of asbestos-containing products or when performing brake and clutch repairs. In the construction industry, exposure occurs when workers disturb asbestos-containing materials during the renovation or demolition of buildings. Employees in the maritime environment also may be exposed when renovating or demolishing ships constructed with asbestos-containing materials. In addition, custodial workers may be exposed through contact with deteriorating asbestos-containing materials in buildings.

Are there any OSHA standards that cover workers exposed to asbestos?

Yes. The Occupational Safety and Health Administration (OSHA) has the following three standards to protect workers from exposure to asbestos in the workplace:

- 29 *CFR* 1926.1101 covers construction work, including alteration, repair, renovation, and demolition of structures containing asbestos.
- 29 *CFR* 1915.1001 covers asbestos exposure during work in shipyards.
- 29 *CFR* 1910.1001 applies to asbestos exposure in general industry, such as exposure during brake and clutch repair, custodial work, and manufacture of asbestos-containing products.

The standards for the construction and shipyard industries classify the hazards of asbestos work activities and prescribe particular requirements for each classification:

- Class I is the most potentially hazardous class of asbestos jobs and involves the removal of thermal system insulation and sprayed-on or troweled-on surfacing asbestos-containing materials or presumed asbestos-containing materials.
- Class II includes the removal of other types of asbestos-containing materials that are not thermal system insulation, such as resilient flooring and roofing materials containing asbestos.
- Class III focuses on repair and maintenance operations where asbestos-containing or presumed asbestos-containing materials are disturbed.
- Class IV pertains to custodial activities where employees clean up asbestos-containing waste and debris.

There are equivalent regulations in states with OSHA-approved state plans.

What are the permissible exposure limits for asbestos?

Employee exposure to asbestos must not exceed 0.1 fiber per cubic centimeter (f/cc) of air, averaged over an 8-hour work shift. Short-term exposure must also be limited to not more than 1 f/cc, averaged over 30 minutes. Rotation of employees to achieve compliance with either permissible exposure limit (PEL) is prohibited.

Are employers required to conduct exposure monitoring?

In construction and shipyard work, unless you are able to demonstrate that employee exposures will be below the PELs (a "negative exposure assessment"), you are generally required to conduct daily monitoring for workers in Class I and II regulated areas. For workers in other operations where exposures are expected to exceed one of the PELs, you must conduct periodic monitoring. In general industry, you must perform initial monitoring for workers who may be exposed above a PEL or above the excursion limit. You must conduct subsequent monitoring at reasonable intervals, and in no case at intervals greater than 6 months for employees exposed above a PEL.

Must employers create regulated areas?

You must create controlled zones known as regulated areas that are designed to protect employees where certain work with asbestos is performed. You must limit access to regulated areas to authorized persons who are wearing appropriate respiratory protection. You must also prohibit eating, smoking, drinking, chewing tobacco or gum, and applying cosmetics in these areas. You must display warning signs at each regulated area. In construction and shipyards, workers must perform Class I, II, and III asbestos work (and all other

Asbestos

operations where asbestos concentrations may exceed a PEL) within regulated areas. In general industry, you must establish regulated areas wherever asbestos concentrations may exceed a PEL.

What compliance methods must employers use to control exposures?

You must control exposures to or below the PELs using engineering controls and work practices to the extent feasible. Where feasible engineering controls and work practices do not ensure worker protection at the exposure limits, you must reduce employee exposures to the lowest levels achievable and then supplement them with respiratory protection to meet the PELs. In construction and shipyards, each work classification has specific control method requirements. In general industry, specific controls are prescribed for brake and clutch repair work. For example, you must prohibit certain practices, such as the use of compressed air, to remove asbestos.

When are employers required to provide respiratory protection for workers?

You must provide and ensure the use of respirators when a PEL is exceeded. In construction and shipyards, you must require workers to use respirators when performing certain work. Generally, the level of exposure determines the type of respirator needed. In addition, the standards specify the type of respirator to be used for certain asbestos work. (See *CFR* 1910.134.) Employees must get respirator training and medical clearance to use respirators.

Are employers required to provide protective clothing for workers?

Yes. For any employee exposed to airborne concentrations of asbestos that exceed a PEL, you must provide and require the use of protective clothing such as coveralls or similar full-body clothing, head coverings, gloves, and foot coverings. You must provide face shields, vented goggles, or other appropriate protective equipment wherever the possibility of eye irritation exists and require workers to wear them.

Must employers provide hygiene facilities?

Yes. You must establish decontamination areas and hygiene practices for employees exposed above a PEL. In addition, employees may not smoke in work areas that might expose them to asbestos.

Do OSHA standards require employers to provide training?

Yes. In construction and shipyards, you must provide training for employees exposed above a PEL and for employees involved in each identified work classification. The specific training requirements depend upon the particular class of work being performed. In general industry, you must provide training to all employees exposed above a PEL. You must also provide asbestos awareness training to employees who perform housekeeping operations covered by the standard. You must place warning labels on all asbestos products, containers, and installed construction materials when feasible.

What are employers required to provide concerning medical examinations?

In construction and shipyards, you must provide medical examinations for workers who, for 30 or more days per year, engage in Class I, II, or III work or experience exposure above a PEL. In general industry, you must provide medical examinations for workers who are exposed above a PEL.

What are the recordkeeping requirements for asbestos exposures?

You must keep accurate records of the following:

- All measurements taken to monitor employee exposure to asbestos—30 years;
- Medical records, including physician's written opinions—duration of the employee's employment plus 30 years; and
- Training records—1 year beyond the last date of employment.

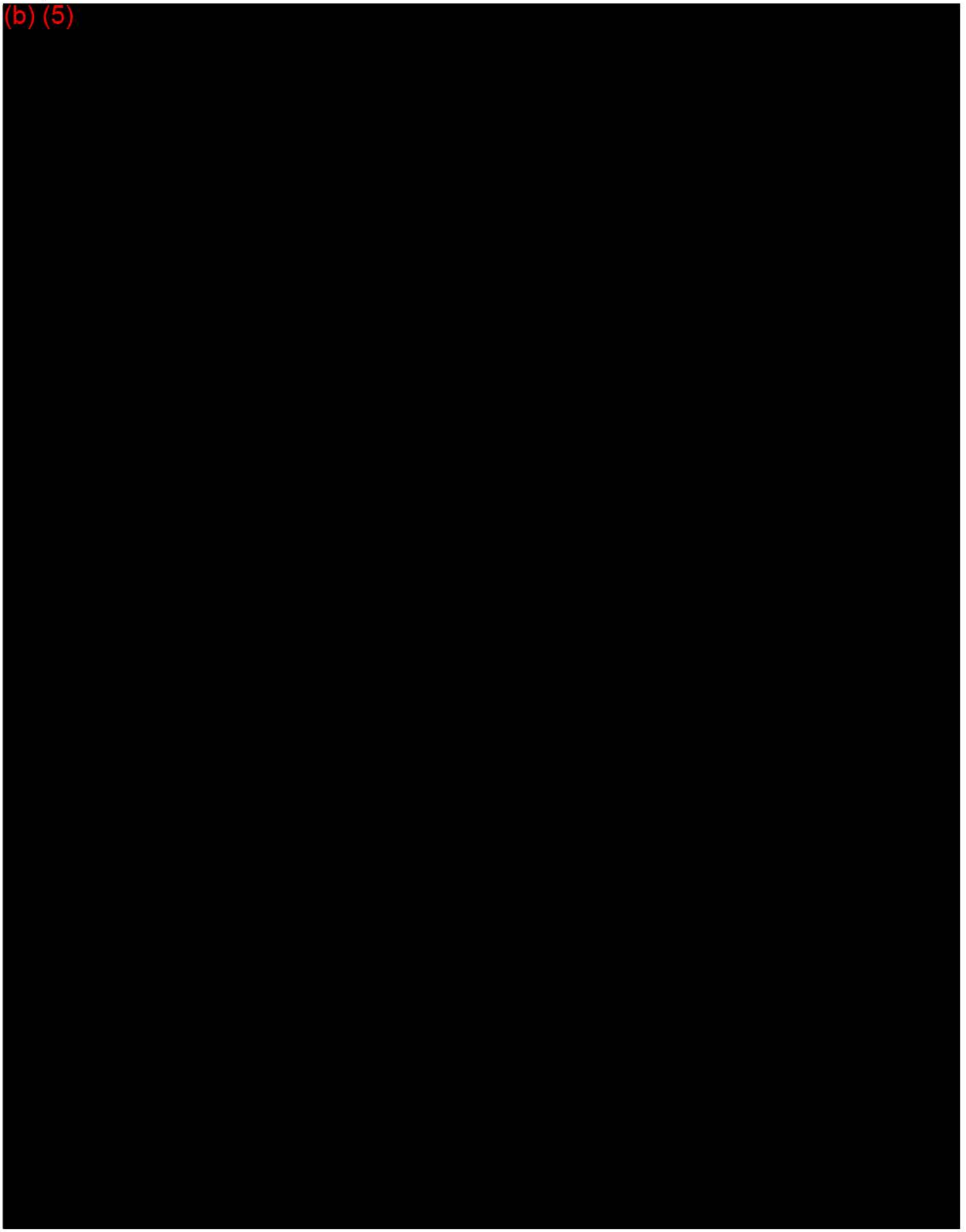
How can you get more information on safety and health?

OSHA has various publications, standards, technical assistance, and compliance tools to help you, and offers extensive assistance through workplace consultation, voluntary protection programs, grants, strategic partnerships, state plans, training, and education. OSHA's *Safety and Health Program Management Guidelines* (*Federal Register* 54:3904-3916, January 26, 1989) detail elements critical to the development of a successful safety and health management system. This and other information are available on OSHA's website.

- For one free copy of OSHA publications, send a self-addressed mailing label to OSHA Publications Office, P.O. Box 37535, Washington, DC 20013-7535; or send a request to our fax at (202) 693-2498, or call us at (202) 693-1888.
- To order OSHA publications online at www.osha.gov, go to Publications and follow the instructions for ordering.
- To file a complaint by phone, report an emergency, or get OSHA advice, assistance, or products, contact your nearest OSHA office under the "U.S. Department of Labor" listing in your phone book, or call toll-free at (800) 321-OSHA (6742). The teletypewriter (TTY) number is (877) 889-5627.
- To file a complaint online or obtain more information on OSHA federal and state programs, visit OSHA's website.

This is one in a series of informational fact sheets highlighting OSHA programs and standards. It does not impose any new compliance requirements or carry the force of legal opinion. For compliance requirements of OSHA standards or regulations, refer to *Title 29 of the Code of Federal Regulations*. This information will be made available to sensory impaired individuals upon request. Voice phone is (202) 693-1999. See also OSHA's website at www.osha.gov.

U.S. Department of Labor
Occupational Safety and Health Administration
2002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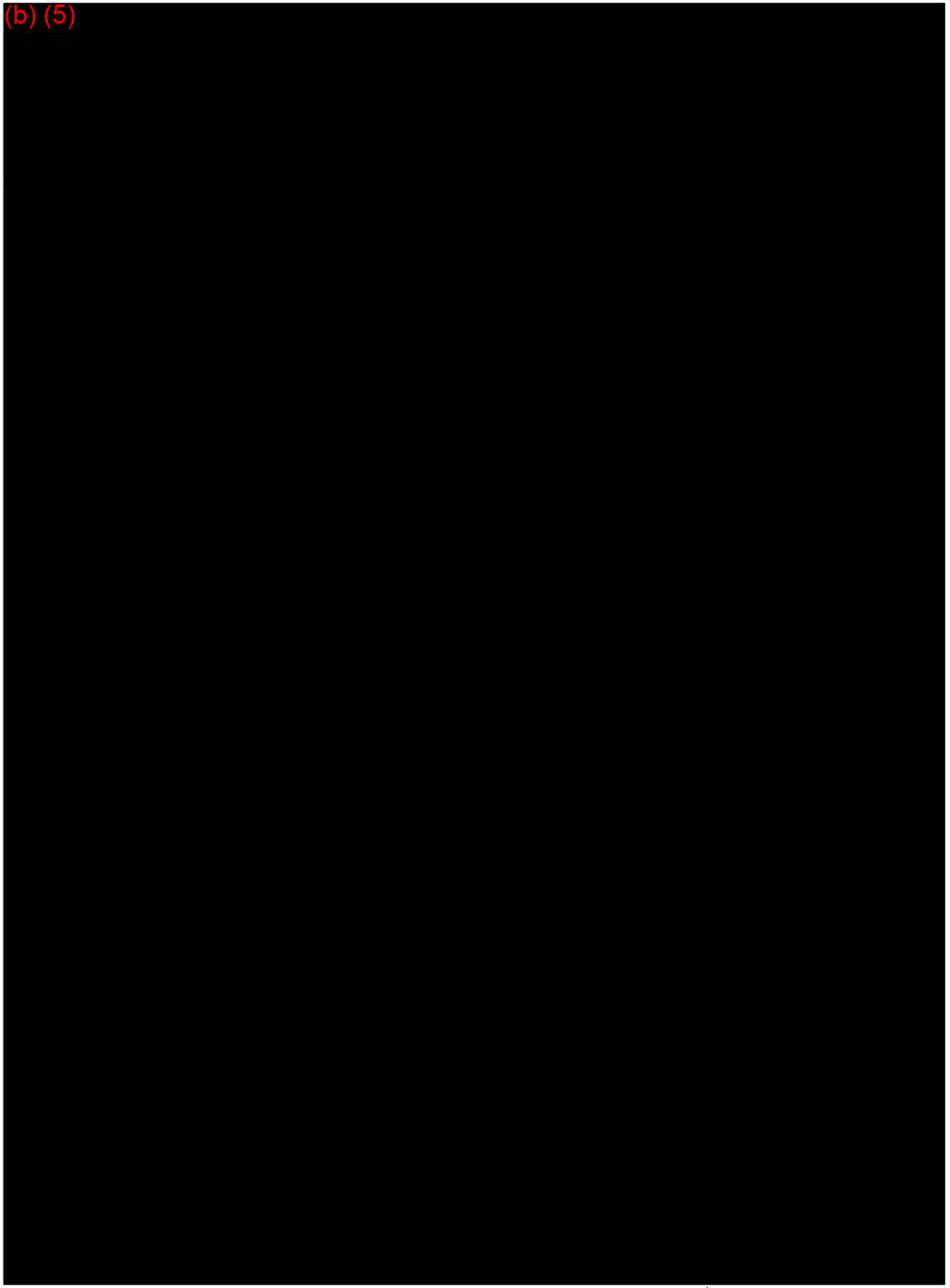
ATTACHMENT 3: Enforcement Addendum (Confidential/FOIA Exempt)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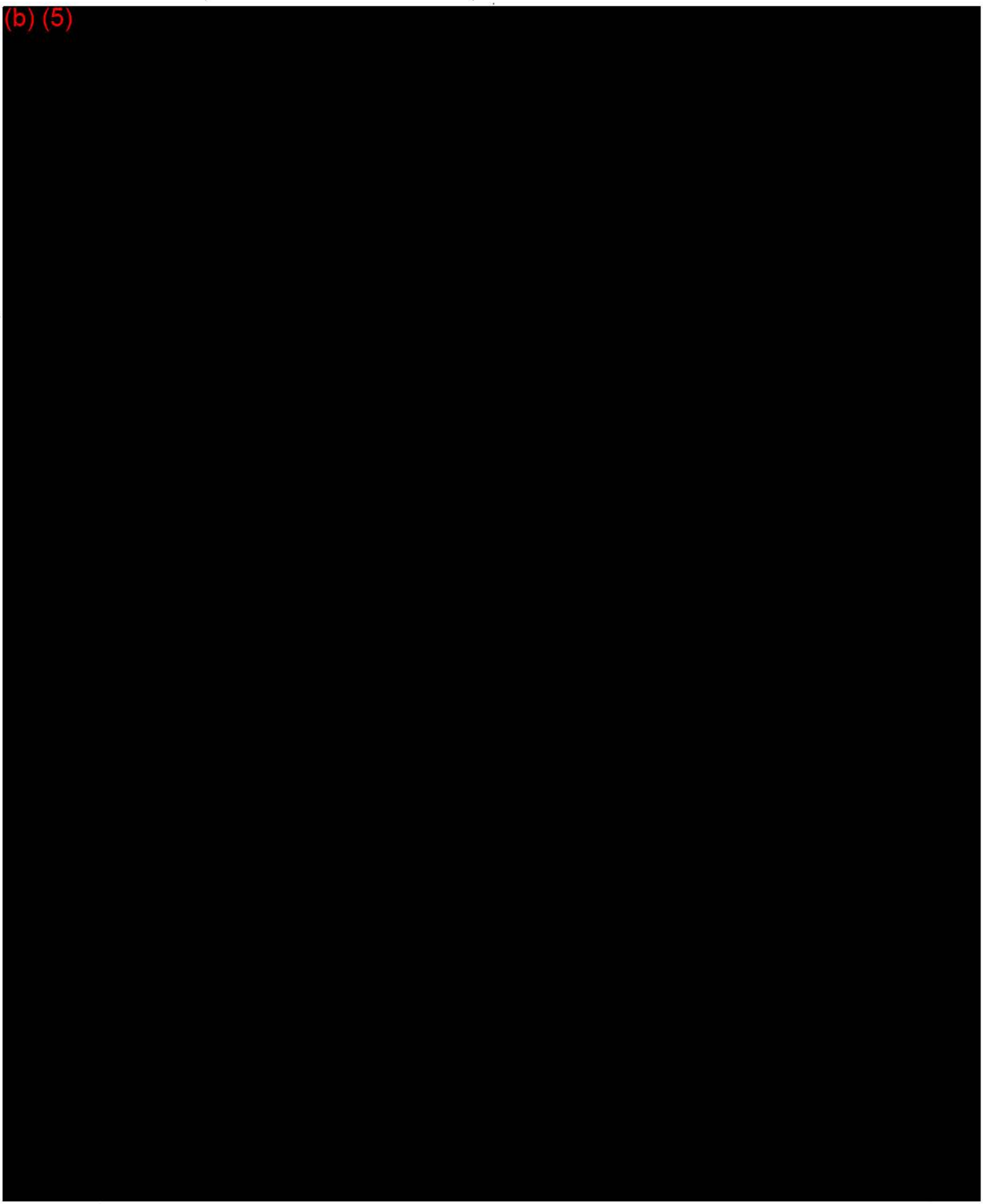
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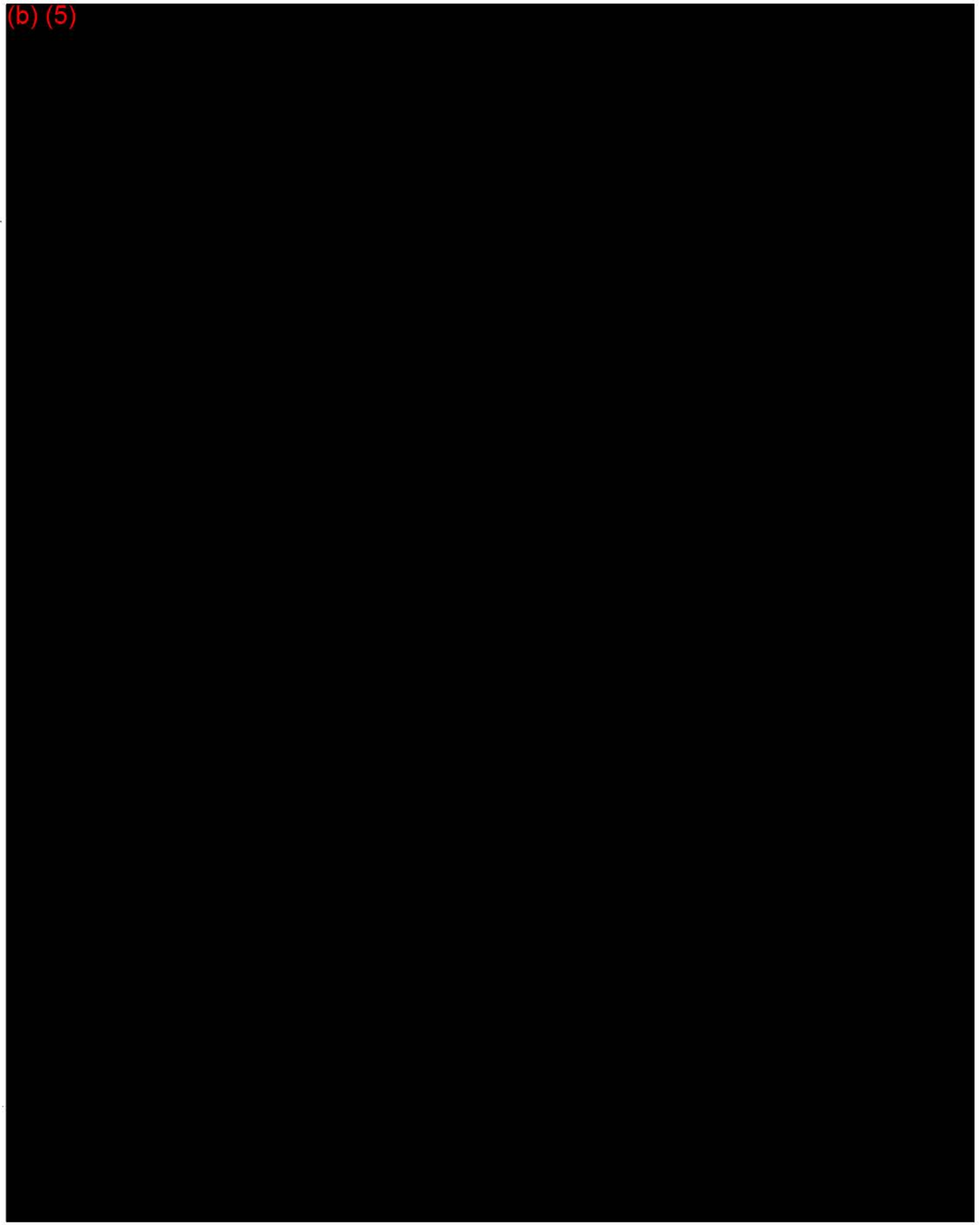
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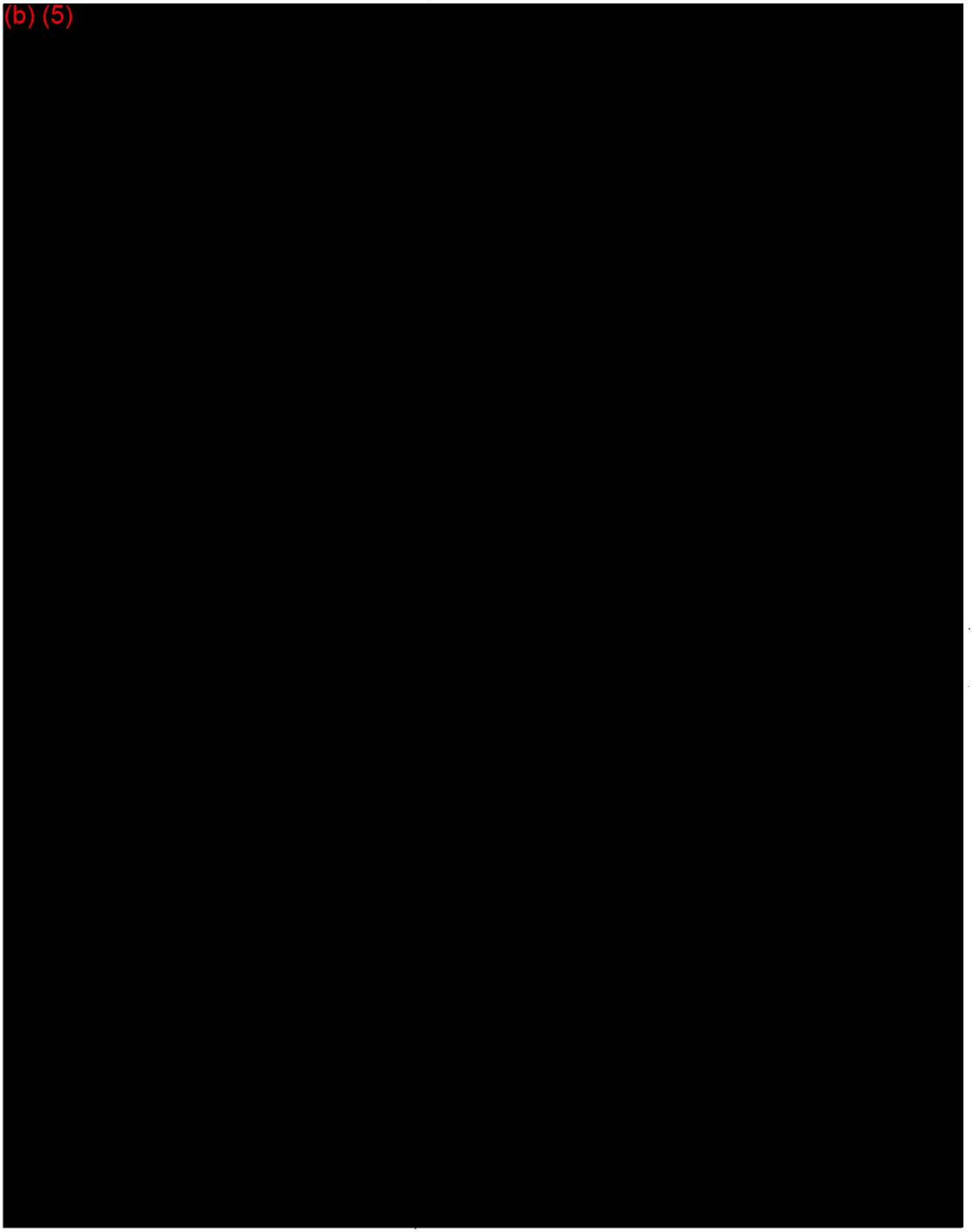
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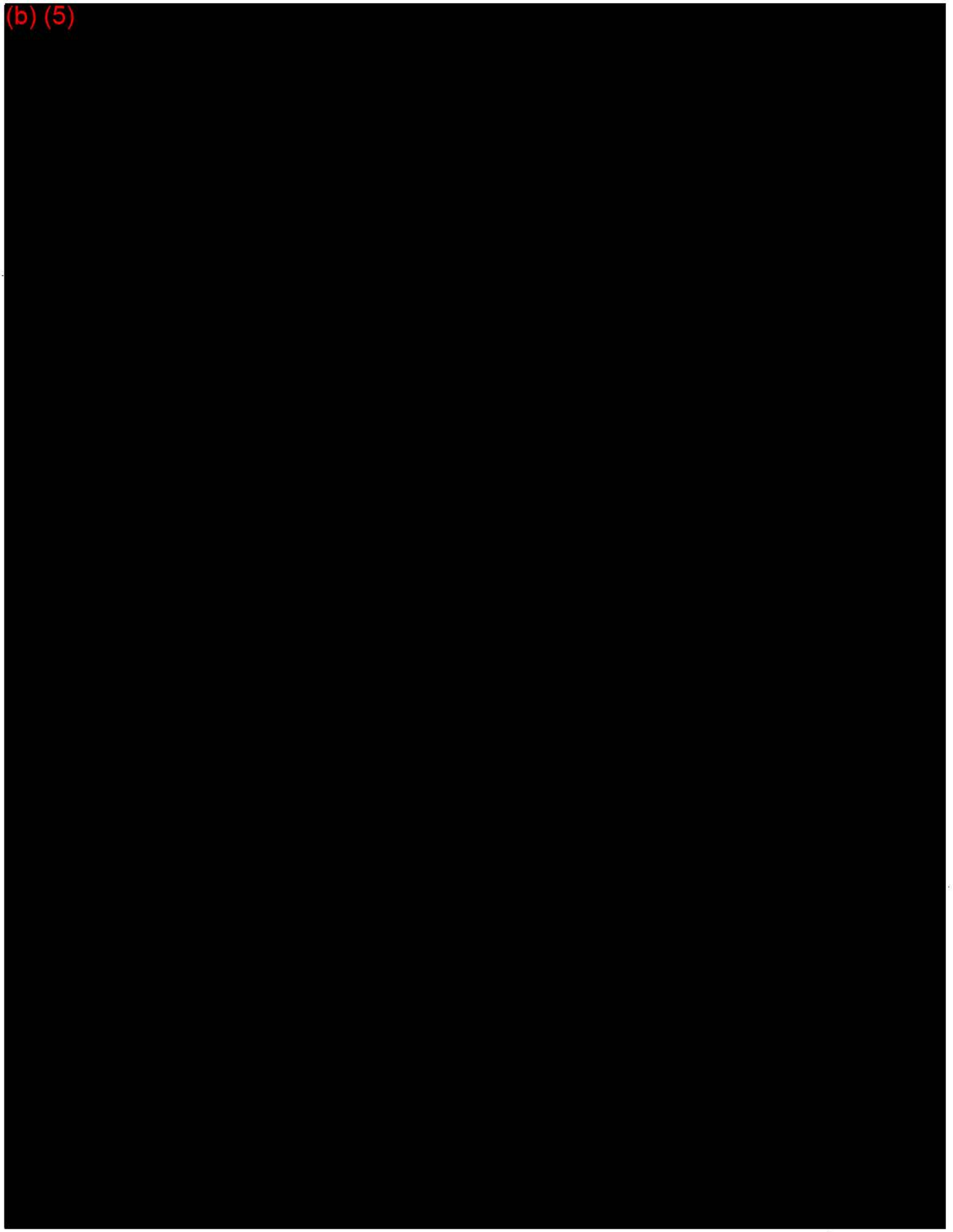
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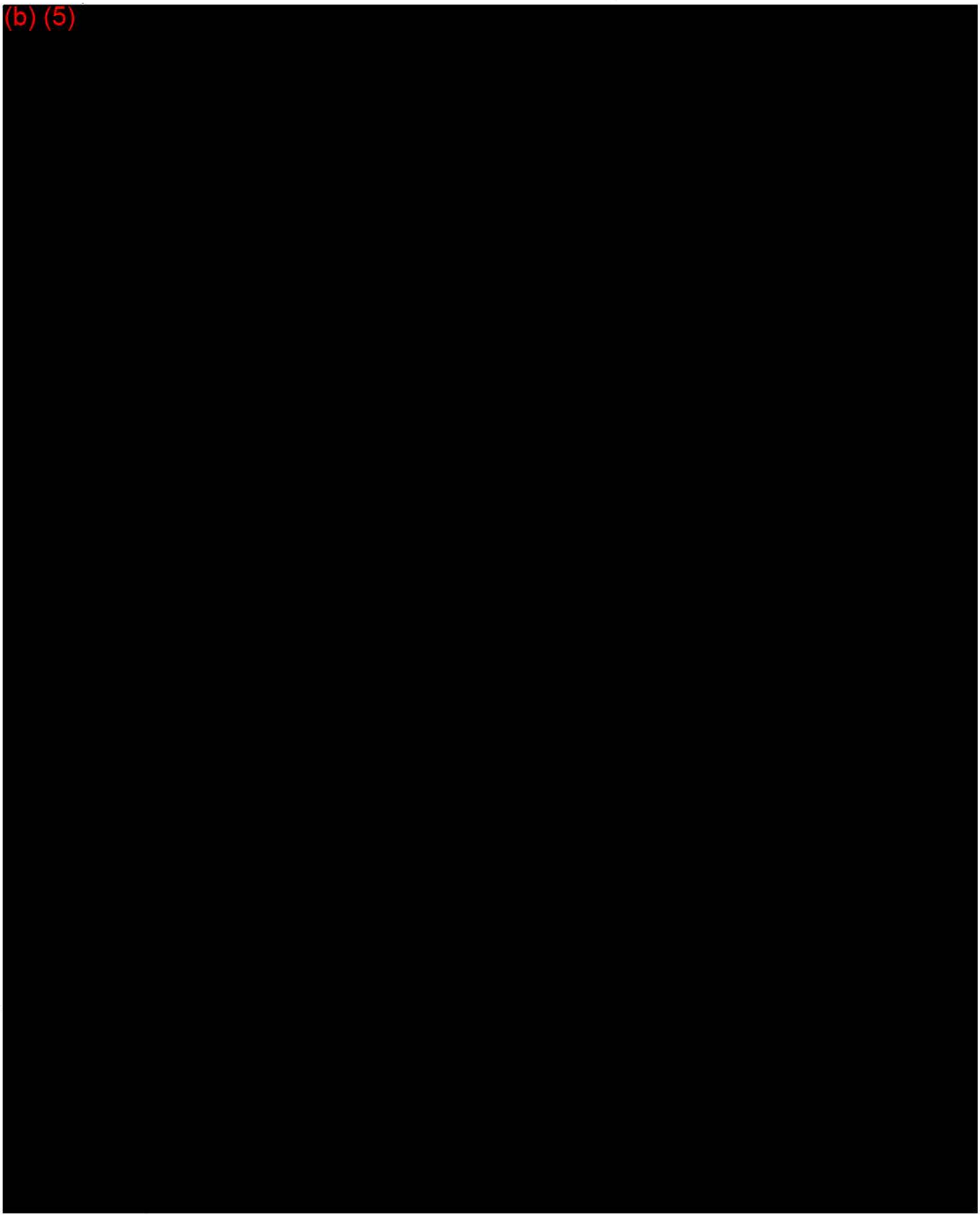
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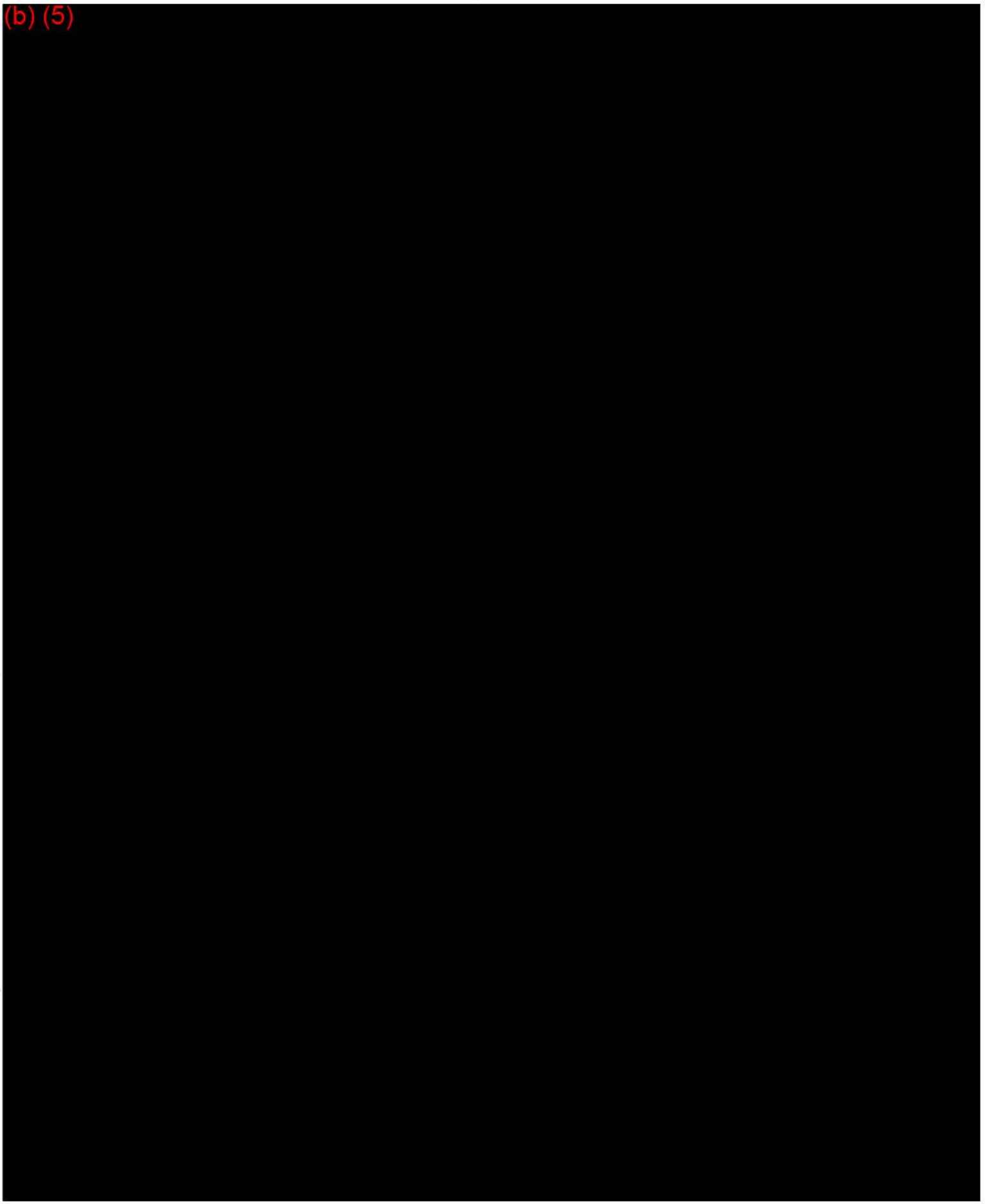
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1201 ELM STREET, SUITE 500
DALLAS, TEXAS 75270

MEMORANDUM

SUBJECT: Request for a Ceiling Increase To Complete the Removal Action (Phase 2) at the Goodrich Asbestos Site, Miami, Ottawa County, Oklahoma.

FROM: Mike McAteer, On-Scene Coordinator
Readiness and Emergency Response Team

THRU: Craig Carroll, Chief
Emergency Management Branch

TO: Wren Stenger, Director
Superfund and Emergency Management Division

I. PURPOSE

This memorandum requests approval for an increase to the funding ceiling in the amount of $249,000 pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, 42 U.S.C. §§9601 et seq., to complete the second phase of removal activities at the Goodrich Asbestos Site in Miami, Ottawa County, Oklahoma (hereafter referred to as the "Site"). Approval of this request will bring the total removal action ceiling to $4,675,742. The proposed second phase of removal activities involves the abatement of Asbestos Containing Materials (ACM) inside the Powerhouse Building and removal of ACM in the pits and basements located throughout the foundations. A small component of the second removal phase will also address incidental wastes abandoned by a previous owner. These wastes include waste solvents, bleach, toluene, paints, thousands of fluorescent light bulbs (mercury), carbon black powder, and universal wastes such as mercury switches. These wastes have been released, or threaten to be released, into the environment stemming primarily from the operations of the B.F. Goodrich plant at the Site from approximately 1946 to 1986. This Site involves nationally significant or precedent setting issues, as this removal primarily involves asbestos.

The Region 6 Superfund and Emergency Management Division Director provided verbal approval for an Emergency Removal Action at the Site (Phase 1) on May 2, 2019. An Emergency Removal Action and Exemption from the $2 Million and 12 month Statutory Limitation were then approved in an Action Memo dated August 27, 2019, per Delegation of Authority 14-2 and Regional Delegation of Authority R6-14-2. The Action Memo documented a cost ceiling of $3,404,127. The Environmental Protection Agency (EPA) Headquarters was also notified of the Emergency Removal Action. Conditions continue to exist from the same source at the Site warranting a continuation of the removal action.

The second phase of removal also met the criteria for initiating a removal action under the National Contingency Plan (NCP), 40 CFR §300.415. A second Action Memo for Phase 2 removal work was approved by the Superfund Division Director on October 15, 2019, as concurred upon by the EPA Director of Emergency Management also on October 15, 2019. Removal work under Phase 2 began on

Moran	McAteer	Petersen	C. Carroll	Chiang
ORCS	SEDER	SEDEC	SEDE	ORCS
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